

Imibare

Igitabo cy'Umwarimu

Umwaka wa

3

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Uburenganzira bw’umuhanzi

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ISHAKIRO

INTANGIRIRO	1
IMBONERAHAMWE NKOMATANYAMASOMO	7
IMBATA Y'ISOMO RISHINGIYE KU BUSHOBOZI	14
UMUTWE WA 1: IMIBARE KUVA KURI 0 KUGERA KU 2 000	18
1.1 Ubushobozi bw'ingenzi bugamijwe	18
1.2 Ibyizwe mbere bifitanye isano n'uyu mutwe	18
1.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho	18
1.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe	18
1.5 Amagambo umunyeshuri azunguka muri uyu mutwe.....	18
1.6 Uburyo bwo gusesengura ikibazo nyamukuru	19
1.7 Uko umwarimu yita ku bafite ibibazo byihariye yigisha uyu mutwe	19
1.8 Ibyigwa biri muri uyu mutwe	20
1.9 Imyigishirize ya buri kigwa.....	20
1.10 Gusozwa umutwe	41
UMUTWE WA 2: IMIBARE KUVA KURI 0 KUGERA KU 5 000	44
2.1 Ubushobozi bw'ingenzi bugamijwe	44
2.2 Ibyizwe mbere bifitanye isano n'uyu mutwe	44
2.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho	44
2.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe	44
2.5 Amagambo umunyeshuri azunguka muri uyu mutwe.....	44
2.6 Uburyo bwo gusesengura ikibazo nyamukuru	45
2.7 Uko umwarimu yita ku bafite ibibazo byihariye yigisha uyu mutwe	45
2.8 Ibyigwa biri muri uyu mutwe	45
2.9 Imyigishirize ya buri kigwa.....	46
2.10 Gusozwa umutwe	63

UMUTWE WA 3: IMIBARE KUVA KURI 0 KUGERA KU 10 000	67
3.1 Ubushobozi bw'ingenzi bugamijwe	67
3.2 Ibyizwe mbere bifatanye isano n'uyu mutwe	67
3.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho	67
3.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe	67
3.5 Amagambo umunyeshuri azunguka muri uyu mutwe.....	67
3.6 Uburyo bwo gusesengura ikibazo nyamukuru	68
3.7 Uko umwarimu yita ku bafite ibibazo byihariye yigisha uyu mutwe	68
3.8 Ibyigwa biri muri uyu mutwe	68
3.9 Imyigishirize ya buri kigwa.....	68
3.10 Gusoya umutwe	84
UMUTWE WA 4: IMIGABANE IFITE IKITA KITARENZE 10	88
4.1 Ubushobozi bw'ingenzi bugamijwe	88
4.2 Ibyizwe mbere bifatanye isano n'uyu mutwe	88
4.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho	88
4.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe	88
4.5 Amagambo umunyeshuri azunguka muri uyu mutwe.....	88
4.6 Uburyo bwo gusesengura ikibazo nyamukuru	89
4.7 Uko umwarimu yita ku bafite ibibazo byihariye yigisha uyu mutwe	89
4.8 Ibyigwa biri muri uyu mutwe	89
4.9 Imyigishirize ya buri kigwa.....	90
4.10 Gusoya umutwe	103
UMUTWE WA 5: ISANO IRI HAGATI Y'INGERO Z'UBUREBURE	107
5.1 Ubushobozi bw'ingenzi bugamijwe	107
5.2 Ibyizwe mbere bifatanye isano n'uyu mutwe	107
5.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho	107
5.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe	107
5.5 Amagambo umunyeshuri azunguka muri uyu mutwe.....	107
5.6 Uburyo bwo gusesengura ikibazo nyamukuru	107
5.7 Uko umwarimu yita ku bafite ibibazo byihariye yigisha uyu mutwe	108
5.8 Ibyigwa biri muri uyu mutwe	108

5.9	Imyigishirize ya buri kigwa.....	108
5.10	Gusoza umutwe	117

UMUTWE WA 6: INGERO Z'UBUREMERE KUVA KURI *kg* KUGERA KURI *g*..... 121

6.1	Ubushobozi bw'ingenzi bugamijwe	121
6.2	Ibyizwe mbere bifatanye isano n'uyu mutwe	121
6.3	Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho	121
6.4	Ubushobozi umunyeshuri azunguka muri uyu mutwe.....	121
6.5	Amagambo umunyeshuri azunguka muri uyu mutwe.....	121
6.6	Uburyo bwo gusesengura ikibazo nyamukuru	122
6.7	Uko umwarimu yita ku bafite ibibazo byihariye yigisha uyu mutwe	122
6.8	Ibyigwa biri muri uyu mutwe	122
6.9	Imyigishirize ya buri kigwa.....	122
6.10	Gusoza umutwe	132

UMUTWE WA 7: INGERO Z'IBITEMBABUZI KUVA KURI *l* KUGERA KURI *ml*..... 136

7.1	Ubushobozi bw'ingenzi bugamijwe	136
7.2	Ibyizwe mbere bifatanye isano n'uyu mutwe	136
7.3	Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho	136
7.4	Ubushobozi umunyeshuri azunguka muri uyu mutwe.....	136
7.5	Amagambo umunyeshuri azunguka muri uyu mutwe.....	136
7.6	Uburyo bwo gusesengura ikibazo nyamukuru	137
7.7	Uko umwarimu yita ku bafite ibibazo byihariye yigisha uyu mutwe	137
7.8	Ibyigwa biri muri uyu mutwe	137
7.9	Imyigishirize ya buri kigwa.....	137
7.10	Gusoza umutwe	148

UMUTWE WA 8: AMAFARANGA Y'U RWANDA KUVA KU F1 KUGERA KU F 5000..... 151

8.1	Ubushobozi bw'ingenzi bugamijwe	151
8.2	Ibyizwe mbere bifatanye isano n'uyu mutwe	151
8.3	Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho	151
8.4	Ubushobozi umunyeshuri azunguka muri uyu mutwe.....	151

8.5	Amagambo umunyeshuri azunguka muri uyu mutwe.....	151
8.6	Uburyo bwo gusesengura ikibazo nyamukuru	152
8.7	Uko umwarimu yita ku bafite ibibazo byihariye yigisha uyu mutwe.....	152
8.8	Ibyigwa biri muri uyu mutwe	152
8.9	Imyigishirize ya buri kigwa.....	153
8.10	Gusoza umutwe	163
UMUTWE WA 9: INGERO Z'IGIHE.....		166
9.1	Ubushobozi bw'ingenzi bugamijwe	166
9.2	Ibyizwe mbere bifitanye isano n'uyu mutwe	166
9.3	Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho	166
9.4	Ubushobozi umunyeshuri azunguka muri uyu mutwe.....	166
9.5	Amagambo umunyeshuri azunguka muri uyu mutwe.....	166
9.6	Uburyo bwo gusesengura ikibazo nyamukuru	166
9.7	Uko umwarimu yita ku bafite ibibazo byihariye yigisha uyu mutwe.....	166
9.8	Ibyigwa biri muri uyu mutwe	167
9.9	Imyigishirize ya buri kigwa.....	167
9.10	Gusoza umutwe	174
UMUTWE WA 10:AMOKO Y'IMIRONGO N'IMFURUKA.....		176
10.1	Ubushobozi bw'ingenzi bugamijwe	176
10.2	Ibyizwe mbere bifitanye isano n'uyu mutwe	176
10.3	Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho	176
10.4	Ubushobozi umunyeshuri azunguka muri uyu mutwe.....	176
10.5	Amagambo umunyeshuri azunguka muri uyu mutwe.....	176
10.6	Uburyo bwo gusesengura ikibazo nyamukuru	176
10.7	Uko umwarimu yita ku bafite ibibazo byihariye yigisha uyu mutwe.....	177
10.8	Ibyigwa biri muri uyu mutwe	177
10.9	Imyigishirize ya buri kigwa.....	177
10.10	Gusoza umutwe	180
UMUTWE WA 11: KARE, URUKIRAMENDE, MPANDESHATU N'URUZIGA.....		182
11.1	Ubushobozi bw'ingenzi bugamijwe	182
11.2	Ibyizwe mbere bifitanye isano n'uyu mutwe	182

11.3	Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho	182
11.4	Ubushobozi umunyeshuri azunguka muri uyu mutwe	182
11.5	Amagambo umunyeshuri azunguka muri uyu mutwe.....	182
11.6	Uburyo bwo gusesengura ikibazo nyamukuru	183
11.7	Uko umwarimu yita ku bafite ibibazo byihariye yigisha uyu mutwe	183
11.8	Imbonerahamwe y'ibygwa biri muri uyu mutwe	183
11.9	Imyigishirize ya buri kigwa.....	183
11.10	Gusoza umutwe	194
UMUTWE WA 12: IKINYATUZU.....		197
12.1	Ubushobozi bw'ingenzi bugamijwe	197
12.2	Ibyizwe mbere bifitanye isano n'uyu mutwe	197
12.3	Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho	197
12.4	Ubushobozi umunyeshuri azunguka muri uyu mutwe	197
12.5	Amagambo umunyeshuri azunguka muri uyu mutwe.....	197
12.6	Uburyo bwo gusesengura ikibazo nyamukuru	197
12.7	Uko umwarimu yita ku bafite ibibazo byihariye yigisha uyu mutwe	198
12.8	Ibyigwa biri muri uyu mutwe	198
12.9	Imyigishirize ya buri kigwa.....	198
12.10	Gusoza umutwe	203
UMUTWE WA 13 :UMUBARE UBURA MU ITERANYA, IKURAMO, IKUBA N'IGABANYA		204
13.1	Ubushobozi bw'ingenzi bugamijwe	204
13.2	Ibyizwe mbere bifitanye isano n'uyu mutwe	204
13.3	Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho	204
13.4	Ubushobozi umunyeshuri azunguka muri uyu mutwe	204
13.5	Amagambo umunyeshuri azunguka muri uyu mutwe.....	204
13.6	Uburyo bwo gusesengura ikibazo nyamukuru	204
13.7	Uko umwarimu yita ku bafite ibibazo byihariye yigisha uyu mutwe	204
13.8	Ibyigwa biri muri uyu mutwe	205
13.9	Imyigishirize ya buri kigwa.....	205
13.10	Gusoza umutwe	212

UMUTWE WA 14: IBISHUSHANYO BYIFASHISHWA MU KUBARA..... 214

14.1	Ubushobozi bw'ingenzi bugamijwe	214
14.2	Ibyizwe mbere bifitanye isano n'uyu mutwe	214
14.3	Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho	214
14.4	Ubushobozi umunyeshuri azunguka muri uyu mutwe	214
14.5	Amagambo umunyeshuri azunguka muri uyu mutwe.....	214
14.6	Uburyo bwo gusesengura ikibazo nyamukuru	214
14.7	Uko umwarimu yita ku bafite ibibazo byihariye yigisha uyu mutwe	214
14.8	Ibyigwa biri muri uyu mutwe	215
14.9	Imyigishirize ya buri kigwa.....	215
14.10	Gusoza umutwe	217
15.	Ibisubizo by'urugero rw'isuzuma risoza umwaka wa gatatu	219
16.	Ibitabo byifashishijwe	224

INTANGIRIRO

Imibare ni inyigisho y'ingirakamaro kuko abayiga bayivanamo ubumenyingingiro n'ubushobozi bwo kwikemurira ibibazo bahura na byo mu buzima bwa buri muni.

Imibare ifasha umunyeshuri gutekereza byimbitse no gushyira mu gaciro. Imuyobora mu kugira umuco wo kuzigama, kwiteza imbere, arangwa n'indangagaciro zihamye zimufasha kubana n'abandi mu mahoro.

Imibare ni inkingi fatizo mu iterambere, iha umunyeshuri umurongo w'ubuzima. Bigaragara iyo ashobora kubara neza, kugereranya no gupima ibintu bitandukanye. Abasha no gucunga neza umutungo, gukoresha neza igihe azi agaciro kacyo. Bityo agakora imirimo iyo ari yo yose nta mbogamizi .

Imibare itoza umunyeshuri gutekereza neza, kwitwararika no kudahubuka mu byo akora. Bityo ikamutegurira imibereho myiza y'igihe kirekire .

Imiterere rusange y'iki gitabo

Iki gitabo k'imibare cy'umwarimu kije gikurikira icy'umwaka wa kabiri. Gisobanura mu buryo bworoshye kandi bwumvikana neza uko umwarimu akwiye kwigisha isomo ry'Imibare . Kimwereka uko atanga inyigisho zishingiye ku bushobozi aha umunyeshuri uruhare runini mu myigire ye . Ikindi kandi kimuyobora mu kugeza abanyeshuri ku bumenyi, ubumenyingingiro n'ubukesha buteganiye ku munyeshuri urangije ikiciro cya mbere cy'amashuri abanza. Gikubiyemo uburyo bwose bukoreshe mu masomo atandukanye bumufasha kugera ku ntego zisabwa.

Mu kumurinda guhuzagurika, iki gitabo kijyanye n'icy'umunyeshuri kigenda kimwereka neza aho ibyigwa biherereye, uko bitangwa, imyitozo ijyanye na byo n'ibisubizo byayo. By'umwihariko iki gitabo giha umwarimu uburyo bwo kwita ku banyeshuri be bese ntawe asize inyuma.

Imitwe igize iki gitabo

Nk'uko igitabo cy'umunyeshuri kigizwe n'imitwe cumi n'ine (14) ni na ko iki gitabo kirimo imitwe cumi n'ine (14) igaragara mu mbonerahamwe ikurikira:

	Imitwe	Umubare w'amasomo (periods)
1	Imibare kuva kuri 0 kugera 2 000	22
2	Imibare kuva kuri 0 kugera kuri 5 000	22
3	Imibare kuva kuri 0 kugera ku 10 000	22
4	Imigabane ifite ikita kitarenze 10	12
5	Isano hagati y'ingero z'uburebure	12
6	Ingero z'uburemere kuva kuri kg kugera kuri g	18
7	Ingero z'ibitembabuzi kuva kuri l kugera kuri ml	8

8	Amafaranga y'u Rwanda kuva ku F 1 kugera ku F 5 000	10
9	Ingero z'igihe	18
10	Amoko y'imirongo n'imfuruka	12
11	Kare, urukiramende, mpandeshatu n'uruziga	36
12	Ikinyatuzu	6
13	Umubare ubura mu iteranya, ikuramo, ikuba cyangwa igabanya	12
14	Ibishushanyo byifashishwa mu kubara	6

Imiterere ya buri mutwe

Buri mutwe uri muri iki gitabo uteye ku buryo bukurikira:

- ***Ubushobozi bw'ingenzi bugamijwe muri buri mutwe:***
Bugaragaza icyo umunyeshuri azaba ashoboye gukora nyuma ya buri mutwe.
- ***Ibyizwe mbere bifitanye isano na buri mutwe:***
Hagaragazwa ibyo umunyeshuri yize mu myaka ibanza cyangwa mu byigwa bya vuba bifitanye isano n'ikigwa agiye kwiga.
- ***Ubumenyi ku ngingo nsanganyamasomo n'uko bugerwaho:***
Butoranwa mu ngingo 8 z'ingenzi ari zo: Uburinganire, kwita ku bidukikije, umuco w'amahoro, umuco wo gukoresha ubyujije ubuziranenge, kurwanya jenocide n'ingengabitekerezo yayo, ubuzima bw'imyororokere, uburezi budaheza no gukoresha neza umutungo. Hakitabwa ku ngingo zifitanye isano n'umutwe runaka.
- ***Ubushobozi umunyeshuri yunguka muri buri mutwe***
Kuri buri mutwe hagaragazwa ubushobozi umunyeshuri yunguka butoranwa muri ubu bukurikira: Ubushakashatsi no kwikemurira ibibazo, ubushishozi, guhanga udushya, gushyikirana no gufatanya n'abandi, gukoresha imvugo isobanutse, guhora yiyungura ubumenyi.
- ***Amagambo mashya umunyeshuri yunguka muri buri mutwe***
Kuri buri mutwe hagaragazwa amagambo akoreshwa mu gusobanura no kumvikanisha ibikubiye mu byigwa birimo.
- ***Uburyo bwo gusesengura ikibazo nyamukuru***
Buri mutwe utangizwa n'agakuru kagaragaza ikibazo uko giteye kandi gatera abanyeshuri amatsiko yo kumenya ibyo bagiye kwiga. Umwarimu asomesha ako gakuru, akabazaho n'ibibazo bijyanye. Umwarimu asobanurira abanyeshuri ko bazabona ibisubizo bifatika kuri icyo kibazo nyamukuru uko bazajya bagenda bacengerwa n'ubumenyi, ubumenyingiro n'ubukesha bikubiye mu byigwa biri muri uwo mutwe.

- ***Uko umwarimu yita by'umwihariko ku bafite ibibazo byihariye yigisha buri mutwe***
 - Abafata bitinze abaha imyitozo ijyanye n'ubushobozi bwabo yateganijwe kuri buri mutwe.
 - Abafite ubumuga bw'ingingo abanza kumenye izo ari zo akabategurira imfashanyigisho zihariye n'imyitozo yagera buri wese.
 - Abafite impano yo kumva no gukora vuba cyane abaha imyitozo y'inyongera asanga mu gitabo cy'umwarimu, ituma batarangaza abandi.

Ibyigwa biri muri buri mutwe

Buri mutwe ufite imbonerahamwe igaragaza ibyigwa byose biwugize.

- ***Imyigishirize ya buri somo***
Igaragaza intego z'iryo somo, isubiramo cyangwa intangiriro, imfashanyigisho zijyanye n'iryo somo. Ibikorwa by'imyigire n'imyigishirize y'iryo somo, umwanzuro cyangwa isuzuma ry'iryo somo ndetse n'ibisubizo by'ibikorwa n'imyitozo iri mu gitabo cy'umunyeshuri ijyanye n'iryo somo.
- ***Gusoza umutwe***
Umutwe usozwa n'inshamake y'ibyzwemo, ubumenyi bw'inyongera umwarimu asabwa kugira, ibisubizo by'isuzuma risoza uwo mutwe, imyitozo y'umwihariko n'ibisubizo byayo bihabwa abanyeshuri bagenda buhoro mu myigire ndetse n'abihuta cyane kurusha abandi mu myigire yabo.

Imiterere ya buri kigwa

Buri kigwa kiri muri iki gitabo giteye ku buryo bukurikira:

- ***Intego:*** zigaragaza ubumenyi, ubumenyigiro n'ubukesha umunyeshuri asabwa kugeraho nyuma yo kwiga icyo kigwa.
- ***Imyitozo y'isubiramo /Intangiriro:*** imyitozo yo kwiyibutsa ijyanye n'ikigwa gishya cyangwa ibikorwa by'ivumburamatsiko ku kigwa gishya.
- ***Imfashanyigisho:*** Buri kigwa kigira imfashanyigisho zihariye zifasha umunyeshuri kumva neza ibyo yiga azikoresha mu bikorwa binyuranye nko kwitegereza, gukorakora, gupima, gupimura, kugereranya, gushushanya n'ibindi.
- ***Ibikorwa by'imyigire n'imyigishirize:*** Buri kigwa kigira uburyo bwihariye bwo kwigishwa nko kujya impaka, gushakashaka, gukorera mu matsinda no kwitegereza.
- ***Ikomatanywa ry'ibyzwe:*** Rigaragaza mu magambo make ibikubiye muri buri somo
- ***Isuzuma:*** Rikubiyemo ibibazo bisubizwa bavuga, bandika cyangwa bakora byaba umunyeshuri ku giti ke cyangwa mu matsinda.
- ***Ibisubizo by'imyitozo n'ibikorwa bijyanye na buri kigwa:*** Ku mpera ya buri kigwa hatangwa ibisubizo by'ibibazo n'ibikorwa byose byatanze mu gitabo cy'umunyeshuri kuri icyo kigwa.

Ubushobozi rusange bugamijwe mu isomo ry'Imibare y'umwaka wa 3

Umunyeshuri urangije umwaka wa gatatu agomba kuba ashobora:

- Kubara, gusoma, kwandika, gutondeka no kugereranya neza imibare ishyitse kuva kuri 0 kugera kuri 10 000, gusesengura no gukoresha neza kandi byihuse amategeko y'ibara (+, −, x, :) mu mibare ishyitse y'imibara 4.
- Gutandukanya imibare y'igiharwe n'imibare itari igiharwe.
- Gusoma, kwandika no gushushanya neza imigabane itarenze ikizima kimwe ikita kitarenze 10 no gukora imyitoto n'amahurizo bifitanye isano n'ubuzima bwa buri muni.
- Gupima no kugereranya uburebure hifashishijwe metero, kugaragaza isano, guhindura ingero z'uburebure no gukora imyitoto n'amahurizo ku ngero z'uburebure.
- Gupima no kugereranya uburemere bw'ibintu binyuranye muri kg, gukora imyitoto n'amahurizo kuri kg.
- Gupima no kugereranya ingano y'ibintu binyuranye muri l, dl, cl na ml, kwandika no gusoma ingero z'ibitembabuzi (l, dl, cl na ml) no kugaragaza aho zikoreshwa mu buzima busanzwe.
- Gutandukanya amafaranga y'u Rwanda kuva ku F1 kugera ku F 5 000, kuvunja no gukora amahurizo arimo guteranya no gukuramo amafaranga.
- Gukoresha neza indangaminsi no kuvuga igihe kerekanwe n'isaha.
- Gutandukanya amoko y'imirongo, ay'imfuruka, kubishushyanya no gutanga ingero z'aho biboneka mu buzima busanzwe.
- Gushushanya no kuranga kare, urukiramende, mpandeshatu n'uruziga no gutandukanya amoko ya mpandeshatu.
- Kubaka ikinyatuzu no kuranga utudomo ku kinyatuzu kitarenza imbariro n'inkingi 10.
- Gushaka imibare ibura mu rukurikirane rw'ibara no gusobanura uko iyo mibare iboneka ku mibare y'imibara 4.
- Gusesengura no gusobanura amakuru atangwa n'igishushanyo gikoreshwa mu kubara.

Uburyo bukoreshwa higishwa isomo ry' Imibare

Mu kwigisha imibare ni ngombwa kuyihuza n'ubuzima busanzwe herekanwa akamaro ifitiye abayiga.

- Bigakorwa hatangwa ingero z'aho ikoreshwa n'uko ikoreshwa mu buzima bwa buri muni.
- Gukora isesengura ry'ibibazo by'imibare bifitanye isano n'ubuzima umunyeshuri abamo. Bikamufasha kubaka ubushobozi bwo gushishoza, gutekereza byimbitse no guhuza ibyo yiga n'ubuzima bwe bwa buri muni.
- Ibiganiro mu matsinda bitoya abanyeshuri gukora ubushakashatsi.
- Imyitoto inyuranye ituma bitabira kuvumbura ibyo batari bazi, basoma ibitabo

binyuranye, bashakisha amakuru anyuranye kugira ngo bashobore guhanga udushya.

- Imyitozo inyuranye n’amahurizo, abanyeshuri bakorera mu matsinda bibacengezemo umuco wo gukorana no gushyikirana n’abandi.
- Umunyeshuri agomba kugira uruhare runini mu myigire ye, ibyo bituma umunyeshuri ashakashaka, akitegereza, agakorakora, agahinduranya, agaterura, agapima, akavumbura akoresheje imfashanyigisho zitandukanye.

Ibyo umwarimu asabwa gukora igihe yigisha Imibare

- Kuyobora no kugenzura niba ibyo umunyeshuri akora ibigaragaza ubushobozi bushingiye ku bumenyi, ku bumenyingiro, ku bukesha no ku ndangagaciro ahabwa cyangwa atozwa n’umwarimu n’ababyeyi.
- Gutegura imfashanyigisho zijyanye n’isomo agiye kwigisha kandi zitarangaza abanyeshuri cyangwa ngo zibarushye. Ariko ashobora no gufatanya na bo kuzishaka cyangwa akazibatuma iyo bitabagoye.
- Kwigisha isomo rye yubahiriza imikurikiranire y’ibi bice: imboneshajisho, ishushanyamibare n’imboneshabwenge.
- Gutegura ibikorwa n’imyitozo aha abanyeshuri ashingiye ku buzima bwabo bwa buri muni no ku bintu basanzwe babona.
- Kwita kuri buri munyeshuri abakangurira kugira uruhare mu myigire yabo.
- Guha umunyeshuri umwanya uhagije wo kugaragariza bagenzi be ibyo ashoboye no kubabwira ubushakashatsi yakoze.
- Gutanga imyitozo isaba umunyeshuri gutekereza ku buryo bworoshye no gutekereza ku buryo bwimbitse.
- Guha abanyeshuri imyitozo ihagije mu gihe cyo kwiga n’imikoro batahana mu rugo kandi bakazayikosorera hamwe mu ishuri mbere yo gutangira irindi somo.
- Guhitamo aho amasomo atangirwa haba hanze cyangwa mu ishuri.
- Kwita kuri buri munyeshuri kugira ngo akosore imivugire ye, imisomere ye , imyandikire ye ndetse n’ imitekerereze ye.
- Gutegura isomo rifite intego zumvikana kandi uburyo bwo kuzigeraho ntibugore umunyeshuri ndetse na we ubwe.
- Kwita ku kigero cy’umunyeshuri kandi akamufasha kwiyigisha.
- Kwigisha abanyeshuri uhereye ku byo bazi mbere yo kugera ku isomo rishya kugira ngo bibafashe kwivumburira isomo ry’uwo muni.
- Gushaka ibisubizo by’ibibazo byose ukabigereranya n’ibyatanze mu gitabo mbere yo gukosora abanyeshuri.

Ibyo umunyeshuri asabwa gukora igihe yiga Imibare

- Gukora ibikorwa bye bwite cyangwa ibyo afatanye na bagenzi be.
- Kwifashisha imfashanyigisho yahawe agakora ibyo umwarimu amubwira.
- Kubaha bagenzi be no kugira ikinyabupfura mu ishuri
- Gufata neza ibikoresho bye n’iby’abandi

- Kumenya gukorana n’abandi, kwihangana no kwemeranya ku gisubizo kiri cyo.
- Kumenya kwitegereza, gukorakora no gushyira ibintu mu buryo.

Uko isuzuma rikoreshe n’ibigomba kwitabwaho

- Isuzuma rigomba gushingira ku bushobozi: umunyeshuri agakora umwitozo ujyanye n’ubuzima bwa buri muni ashyira mu bikorwa ibyo yize.
- Isuzuma ryo kugorora imyigire n’imyigishirize hakoreshe uburyo buziguye n’ubutaziguye hagamijwe gusuzuma ko abanyeshuri biga uko bikwiye.
- Ni ngombwa kugena ingingo ngenderwaho mu gusuzuma urwego rw’ubushobozi (ubumenyi, ubumenyigiro n’ubukeshya) abanyeshuri basabwa kugeraho muri buri somo.
- Ni ngombwa gusuzuma niba abanyeshuri bese bashoboye kugera uko bikwiye ku bushobozi bw’ingenzi bugamijwe nyuma ya buri mutwe uhagaze ku bigenderwaho mu isuzuma byateganyijwe mu ntangiro y’umutwe.
- Ni ngombwa gusuzuma uko abanyeshuri bagaragaza ubushobozi bukubiye mu byigwa ndetse n’ubushobozi nsanganyamasomo.
- Mu isuzuma ni byiza gukoresha impurirane y’uburyo bukurikira:

1. ***Kwitegereza,***
2. ***Ibibazo basubiza bandika,***
3. ***Ibibazo basubiza bavuga.***
4. ***Imyitozo umunyeshuri akora wenyine***
5. ***Imyitozo umunyeshuri akorana n’abandi***

- Ni byiza kureba intera umunyeshuri agezeho nyuma ya buri kigwa, nyuma ya buri mutwe, nyuma ya buri gihembwe na nyuma y’umwaka ugamije gusuzuma ishusho y’ubushobozi umunyeshuri amaze kugeraho.
- Ni byiza gukoresha isuzuma rikomatanya ibyo umunyeshuri yize, hakarebwa niba agaragaza ubushobozi bugamijwe bwari buteganyijwe.
- Ni ngombwa kubika inyandiko zigaragaza umusaruro w’isuzuma habikwa ibyavuye mu isuzuma kugira ngo bizagufashe gutegura ibikorwa cyangwa ingamba zihariye zituma amasomo yumvikana kurushaho.
- Isuzuma ni ryo rigaragaza ko umunyeshuri yakurikiye neza mu ishuri mbere y’uko akora isuzuma risoza.
- Ibibazo by’isuzuma bigomba gutoza abanyeshuri gutekereza ku buryo bwimbitse, gushyira mu gacyiro no gufata imyanzuro ihamye kandi ikwiye .
- Ibibazo by’isuzuma bigomba gutegurwa hashingiwe ku mibereho y’umunyeshuri kandi bifitanye isano n’ubuzima abamo .

Nyuma y’isuzuma ni ngombwa guha ababyeyi raporo y’intambwe abanyeshuri bagenda batera mu myigire yabo, ubereka uko bagaragaza ubushobozi bugamijwe n’aho bafite intege nke hakenewe gushyirwamo imbaraga.

IMBONERAHAMWE NKOMATANYAMASOMO

Imitwe y'amasomo	Umutwe wa 1: Imibare kuva kuri 0 kugera ku 2 000	Umutwe wa 2: Imibare kuva kuri 0 kugera ku 5 000	Umutwe wa 3: Imibare kuva kuri 0 kugera ku 10 000
Umubare w'amasomo	22	20	18
Ubushobozi bw'ingenzi bugamijwe	Kubara, gusoma, kwandika, gutondeka, kugereranya, guteranya, gukuramo, gukuba no kugabanya imibare ishyitse kuva kuri 0 kugera ku 2 000	Kubara, gusoma, kwandika, gutondeka, kugereranya, guteranya, gukuramo, gukuba no kugabanya imibare ishyitse kuva kuri 0 kugera ku 5 000	Kubara, gusoma, kwandika, gutondeka, kugereranya, guteranya, gukuramo, gukuba no kugabanya imibare ishyitse kuva kuri 0 kugera ku 10 000
Umubare w'ibygwa	9	9	9
Imfashanyigisho	Amashusho, amakarita y'imibare	Amashusho, amakarita y'imibare	Amashusho, amakarita y'imibare
Ibikorwa by'imyigire n'imyigishirize	– Kwitegereza – Gukorera mu matsinda – Gushakashaka	– Kwitegereza – Gukorera mu matsinda – Gushakashaka	– Kwitegereza – Gukorera mu matsinda – Gushakashaka
Ubushobozi umunyeshuri yunguka mu isomo	– Ubushishozi no gushakashaka. – Gukemura ibibazo bifitanye isano n'imibare. – Gushyikirana n'abandi. – Guhora yiyungura ubumenyi. – Gufatanya n'abandi mu matsinda – Gukoresha imvugo isobanutse – Kumenya kubara no gukoresha imibare	– Ubushishozi no gushakashaka. – Gukemura ibibazo bifitanye isano n'imibare. – Gushyikirana n'abandi. – Guhora yiyungura ubumenyi. – Gufatanya n'abandi mu matsinda. – Gukoresha imvugo isobanutse. – Kumenya kubara no gukoresha imibare.	– Ubushishozi no gushakashaka. – Gukemura ibibazo bifitanye isano n'imibare. – Gushyikirana n'abandi. – Guhora yiyungura ubumenyi. – Gufatanya n'abandi mu matsinda. – Gukoresha imvugo isobanutse. – Kumenya kubara no gukoresha imibare.
Ubumenyi ku ngingo nsanganyamasomo buri muri buri mutwe	– Gucunga neza umutungo – Umuco w'amahoro – Uburinganire – Gufata neza ibidukikije – Uburezi budaheza	– Gucunga neza umutungo – Umuco w'amahoro – Uburinganire – Gufata neza ibidukikije – Uburezi budaheza	– Gucunga neza umutungo – Umuco w'amahoro – Uburinganire – Gufata neza ibidukikije – Uburezi budaheza.

Ibigenderwaho mu isuzuma	Ubushobozi bwo kubara, gusoma, kwandika, gutondeka, kugereranya, guteranya, gukuramo gukuba no kugabanya neza imibare ishyitse kuva kuri 0 kugera ku 2 000.	Ubushobozi bwo kubara, gusoma, kwandika, gutondeka, kugereranya, guteranya, gukuramo gukuba no kugabanya neza imibare ishyitse kuva kuri 0 kugera ku 5 000.	Ubushobozi bwo kubara, gusoma, kwandika, gutondeka, kugereranya, guteranya, gukuramo gukuba no kugabanya neza imibare ishyitse kuva kuri 0 kugera ku 10 000.
	Umutwe wa 4: Imigabane ifite ikita kitarenze 10	Umutwe wa 5: Isano iri hagati y'ingero z'uburebure	Umutwe wa 6: Ingero z'uburemere kuva kuri kg kugera kuri g
Umubare w'amasomo	12	12	18
Ubushobozi bw'ingenzi bugamijwe	Gukora ibibazo by'imibare bifitanye isano no gusoma, kwandika, gushushanya, guteranya, gukuramo imigabane ihuje ikita kitarenga 10 no gukuba imigabane n'umubare ushyitse.	Gupima no kwerekana isano iri hagati y'ingero z'uburebure. Kugereranya, guteranya, gukuramo ingero z'uburebure no gukuba/ kugabanya ingero z'uburebure n'umubare ushyitse.	Gupima no kugereranya uburemere bw'ibintu binyuranye bitarenze kg 10. Guteranya, gukuramo, gukuba no kugabanya ingero z'uburemere kuva kuri kg kugera kuri g.
Umubare w'ibyigwa	8	9	8
Imfashanyigisho	Amashusho manini, Ibikoreshe binyuranye: urupapuro, icunga, ipapayi, igisheke, inanasi, pasiteki, isahani n'icyuma, amakaramu n'ingwa by'amabara.	Amashusho manini, irati, umugozi ureshya na m, uducamurongo, igipapuro gikomeye, dekametero, metero bushumi na metero buhine, ikibaho, ikibuga....	Amashusho manini, iminzani, amabuye y'iminzani, ibintu binyuranye byo gupima no kugereranya uburemere.
Ibikorwa by'imyigire n'imyigishirize	- Gushushanya imigabane - Kwitegereza	- Gukorera mu matsinda, - Gushakashaka - Gupima ibiro by'ibintu.	- Kwitegereza - Gukorera mu matsinda - Gushakashaka, - Gupima ibiro by'ibintu.

Ubushobozi umunyeshuri yunguka mu isomo	– Ubushishozi no gushakashaka. – Gukemura ibibazo bifitanye isano n’imigabane. – Gushyikirana n’abandi. – Guhora yiyungura ubumenyi. – Gufatanya n’abandi mu matsinda. – Gukoresha imvugo isobanutse. – Kumenya kubara no gukoresha imigabane	– Ubushishozi no gushakashaka. – Gukemura ibibazo bifitanye isano n’ingero z’uburebure. – Gushyikirana n’abandi. – Guhora yiyungura ubumenyi – Gufatanya n’abandi mu matsinda.	– Ubushishozi no gushakashaka. – Gukemura ibibazo bifitanye isano n’ingero z’uburemere. – Gushyikirana n’abandi. – Guhora yiyungura ubumenyi.
Ubumenyi ku ngingo nsanganyamasomo buri muri buri mutwe	– Gucunga umutungo – Umuco w’amahoro n’ubutabera – Uburinganire – Gufata neza ibidukikije – Uburezi budaheza	– Gucunga umutungo – Ubuziranenge – Umuco w’amahoro – Uburinganire – Gufata neza ibidukikije – Uburezi budaheza	– Gucunga umutungo – Ubuziranenge – Umuco w’amahoro – Uburinganire – Gufata neza ibidukikije – Uburezi budaheza
Ibigenderwaho mu isuzuma	Ubushobozi bwo gukora imyitozo ifitanye isano no gusoma, kwandika , gushushanya imigabane ihuje ikita kitarenga 10. Ubushobozi bwo gukora amahurizo afitanye isano no guteranya, gukuramo imigabane ihuje ikita no gukuba imigabane n’umubare ushyitse.	Ubushobozi bwo gupima intera cyangwa uburebure bw’ibintu bifashishije metero cyangwa dekametero. Ubushobozi bwo gukora imyitozo, amahurizo arimo guhindura, kugereranya, guteranya, gukuramo no gukuba ingero z’uburebure. Ubushobozi bwo kugabanya ingero z’uburebure n’umubare ushyitse.	Ubushobozi bwo gupima uburemere bw’ ibintu binyuranye bakoresheje umunzani. Ubushobozi bwo gukora imyitozo n’ amahurizo birimo guhindura, kugereranya, guteranya, gukuramo ingero z’ uburemere. Ubushobozi bwo gukuba no kugabanya ingero z’uburemere n’umubare ushyitse.

	Umutwe wa 7: Ingero z'ibitembabuzi kuva kuri l kugera kuri ml	Umutwe wa 8: Amafaranga y'u Rwanda kuva ku F1 kugera ku F5 000	Umutwe wa 9: Ingero z'igihe
Umubare w'amasomo	6	6	18
Ubushobozi bw'ingenzi bugamijwe	- Gupima no kugereranya itwara ry'ibintu binyuranye muri litiro. - Guteranya, gukuramo, kukuba no kugabanya ingero z'ibitembabuzi kuva kuri l kugera kuri ml.	Gukoresha neza amafaranga y'u Rwanda atarenze 5 000	- Gusoma no kwandika isaha yuzuye, ibura cyangwa irengaho iminota 30 n'isaha ibura cyangwa irengaho iminota 15. - Kugaragaza iminsi ya buri kwezi n'iy'umwaka. - Gukurikiranya amezi y'umwaka, gusoma no gukoresha neza indangaminsi.
Umubare w'ibyigwa	5	4	8
Imfashanyigisho	Ibivomesho binyuranye, amacupa ya litiro, utuyiko twa ml 5 na ml 10, uducupa tw'imiti twa ml 100.	Amafaranga y'u Rwanda kuva kuri F1 kugera ku F 5 000, impapuro zikomeye.	Isaha y'inshinge n'iy'imibare, indangaminsi n'impapuro zikomeye.
Ibikorwa by'imyigire n'imyigishirize	- Kwitegereza - Gukorera mu matsinda - Gupima no gupimura	- Kwitegereza - Gukorera mu matsinda - Kugura kuvunja no kugaruza	- Kwitegereza - Gukorera mu matsinda - Kuvuga igihe kiri ku isaha. - Gushushanya
Ubushobozi umunyeshuri yunguka mu isomo	- Ubushishozi no gushakashaka. - Gukemura ibibazo bifitanye isano n'ingero z'ibitembabuzi. - Gushyikirana n'abandi. - Guhora yiyungura ubumenyi. - Gufatanya n'abandi mu matsinda.	- Ubushishozi no gushakashaka. - Gukemura ibibazo bifitanye isano n'amafaranga. - Gushyikirana n'abandi. - Gufatanya n'abandi mu matsinda.	- Ubushishozi no gushakashaka. - Gukemura ibibazo bifitanye isano n'igihe. - Gushyikirana n'abandi. - Guhora yiyungura ubumenyi. - Gufatanya n'abandi mu matsinda.

Ubumenyi ku ngingo nsanganyamasomo buri muri buri mutwe	– Gucunga umutungo – Ubuziranenge – Umuco w’amahoro – Uburinganire – Gufata neza ibidukikije – Uburezi budaheza	– Gucunga umutungo – Ubuziranenge – Umuco w’amahoro – Uburinganire – Uburezi budaheza – Uburere mbonerabitsina	– Gucunga umutungo – Ubuziranenge – Umuco w’amahoro – Uburinganire – Uburezi budaheza
Ibigenderwaho mu isuzuma	Ubushobozi bwo gupima itwara ry’ibintu binyuranye muri litiro bakoresheje ibikoresho bitandukanye. Ubushobozi bwo gukora imyitozo n’ amahurizo arimo guhindura, kugereranya, guteranya, gukuramo ingero z’ibitembabuzi. Ubushobozi bwo gukuba no kugabanya ingero z’ibitembabuzi n’umubare ushyitse.	Ubushobozi bwo gutandukanya amafaranga y’ u Rwanda, kuvunja no gukora amahurizo anyuranye ku mafaranga.	Ubushobozi bwo gusoma no kwandika igihe, kugaraza iminsi ya buri kwezi, iy’umwaka no gukurikiranya amezi y’umwaka. Ubushobozi bwo gusoma no gukoresha neza indangaminsi.

	Umutwe wa 10 : Amoko y’imirongo n’imfuruka	Umutwe wa 11: Kare, urukiramende, mpandeshatu n’uruziga	Umutwe wa 12: Ikinyatuzu
Umubare w’amasomo	12	36	6
Ubushobozi bw’ingenzi bugamijwe	– Guca no gutahura imirongo iteganye, ikorana inguni n’inyuranamo. – Gushushanya no kugereranya imfuruka igororotse, ifunganye n’iyagutse.	– Gushushanya no kuranga kare, urukiramende, mpandeshatu n’uruziga. – Gushaka umuzenguruko wa kare, urukiramende na mpandeshatu.	Kubaka ikinyatuzu no kuranga utudomo ku kinyatuzu kitarenza imbariro n’inkingi 10.
Umubare w’ibyigwa	2	5	3

Imfashanyigisho	Inguni, metero, agacamurongo n' ingeramfuruka, impapuro zikomeye.	Amashushongero anyuranye, metero, inguni, uducamurongo, agacaruziga, Ingeramfuruka.	Inguni, metero, agacamurongo, urupapuro rukomeye, amakaramu.
Ibikorwa by'imyigire n'imyigishirize	– Kwitegereza, – Gukorera mu matsinda, – Gupima – Gushakashaka, – Gushushanya kugereranya.	– Kwitegereza, gukorera mu matsinda, – Gupima – Gushakashaka, – Gukata no gushushanya.	– Kwitegereza, – Gupima, – Gukorera mu matsinda, – Kubara no gushushanya.
Ubushobozi umunyeshuri yunguka mu isomo	– Ubushishozi no gushakashaka. – Gukemura ibibazo bifitanye isano n'imirongo n'imfuruka. – Gushyikirana n'abandi. – Guhora yiyungura ubumenyi. – Gushushanya neza amoko y'imfuruka. – Gufatanya n'abandi mu matsinda.	– Ubushishozi no gushakashaka – Gukemura ibibazo bifitanye isano n'ibinyampande (Kare, urukiramende, mpandeshatu n'uruziga) – Gushyikirana n'abandi. – Gufatanya n'abandi mu matsinda.	– Ubushishozi no gushakashaka. – Gukemura ibibazo bifitanye isano n'ikinyatuzu. – Gushyikirana n'abandi. – Guhora yiyungura ubumenyi. – Gufatanya n'abandi mu matsinda.
Ubumenyi ku ngingo nsanganyamasomo buri muri buri mutwe	– Gucunga umutungo – Ubuziranenge – Umuco w'amahoro – Uburinganire – Gufata neza ibidukikije – Uburezi budaheza	– Gucunga umutungo – Ubuziranenge – Umuco w'amahoro – Uburinganire – Uburezi budaheza – Uburere mbonerabitsina	– Gucunga umutungo – Ubuziranenge – Umuco w'amahoro – Uburinganire – Uburezi budaheza – Ubushobozi bwo gushushanya ikinyatuzu
Ibigenderwaho mu isuzuma	Ubushobozi bwo guca no gutahura imirongo iteganye, ikorana inguni n' inyuranamo. Ubushobozi bwo gushushanya, gupima no kugereranya imfuruka igororotse, ifunganye n' iyagutse.	Ubushobozi bwo gushushanya no kuranga kare, urukiramende, mpandeshatu n'uruziga. Ubushobozi bwo gushaka umuzenguruko wa kare, urukiramende na mpandeshatu.	Ubushobozi bwo kuranga no gushyiramo akadomo cyangwa ishushongero akurikije inkingi n' imbariro.

	Umutwe wa 13: Umubare ubura mu iteranya , ikuramo, ikuba cyangwa igabanya	Umutwe wa 14: Ibishushanyo byifashishwa mu kubara
Umubare w'amasomo	12	6
Ubushobozi bw'ingenzi bugamijwe	Gushaka umubare ubura uhaye ku mategeko y'ibara no kugaragaza itegeko rikoreshe.	Gusesengura no gusobanura amakuru atangwa n'igishushanyo gikoreshe mu kubara.
Umubare w'ibigwa	2	4
Imfashanyigisho	Utubarisho tunyuranye, urupapuro rukomeye rugaragaza ingero zinyuranye.	Ibikoreshe binyuranye, ibishushanyo kifashishwa mu kubara ku rupapuro rukomeye.
Ibikorwa by'imyigire n'imyigishirize	Kwitgereza, gukorera mu matsinda, gushakashaka, kubara, guteranya, gukuramo, gukuba, kugabanya, gutondeka, kugereranya.	Kwitgereza, gukorera mu matsinda, gushushanya, gushakashaka no kubara.
Ubushobozi umunyeshuri yunguka mu isomo	– Ubushishozi no gushakashaka. – Gukemura ibibazo bifitanye isano n'ingero z'ibitembambuzi. – Kuja impaka adahutaza abandi. – Gushyikirana n'abandi. – Guhora yiyungura ubumenyi – Gutekereza no kumva neza amabwiriza y'ibyo asabwa gukora. – Kubara adahubutse. – Kugenzura no kunoza ibyo yakoze. – Kwandika neza imbonerahamwe y'ingero z'ibitembambuzi n'ibimenyetso bikoreshe. – Gufatany n'abandi mu matsinda.	– Ubushishozi no gushakashaka. – Gukemura ibibazo bifitanye isano n'ingero z'ibitembambuzi. – Kuja impaka adahutaza abandi. – Gushyikirana n'abandi. – Guhora yiyungura ubumenyi. – Gutekereza no kumva neza amabwiriza y'ibyo asabwa gukora. – Kubara adahubutse. – Kugenzura no kunoza ibyo yakoze. – Kwandika neza imbonerahamwe y'ingero z'ibitembambuzi n'ibimenyetso bikoreshe. – Gufatany n'abandi mu matsinda.
Ubumenyi ku ngingo nsanganyamasomo buri muri buri mutwe	– Gucunga umutungo – Ubuziranenge gukoreshe ibyujije – Umuco w'amahoro – Uburinganire – Gufata neza ibidukikije – Uburezi budaheza.	– Gucunga umutungo – Ubuziranenge – Umuco w'amahoro – Uburinganire – Gufata neza ibidukikije – Uburezi budaheza
Ibigenderwaho mu isuzuma	Ubushobozi bwo gushaka umubare ubura mu rukurikira rw'imibare, mu mategeko ane y'ibara no gukora amahurizo biyanye.	Ubushobozi bwo gusesengura, gusobanura no gushushanya amakuru atangwa n'igishushanyo gikoreshe mu kubara.

3. IMBATA Y'ISOMO

Igihembwe	Igihembwe	Inyigisho	Umwaka wa	Umutwe wa	Isomo rya	Igihe isomo rimara	Umubare w'abanyeshuri
1	22/1/2018	Imibare	Gatatu	Mbere	1 kuri 22	Iminota 40	45
Abafite ibyo bagenerwa byihariye mu myigire no mu myigishirize n'umubare wabo							
– Abanyeshuri 4 bafata bitinze – Abanyeshuri 2 bafite ubumuga bw'ingingo – Abanyeshuri 5 b'abahanga kurusha abandi.							
Umutwe	Imibare kuva kuri 0 kugera ku 2000						
Ubushobozi bw'ingenzi bugamijwe	Kubara, gusoma, kwandika, gutondoka, kugereranya, guteranya, gukuramo, gukuba no kugabanya imibare ishyitse kuva kuri 0 kugera ku 2000						
Isomo	Gusoma no kwandika imibare kuva kuri 0 kugera ku 2000						
Intego ngenamukoro	Hifashishijwe imibare yanditse ku kibaho, ku mpapuro nini cyangwa ku makarita umunyeshuri azaba ashobora nyuma y'iri somo gusoma no kwandika imibare kuva kuri 0 kugera ku 2000, asoma neza aranguruye ijwi kandi atajijinganya, akanandika imibare yasomye mu magambo nta makosa.						
Imiterere y'aho isomo ribera	Mu ishuri						
Imfashanyigisho	Imbonerahamwe y'ibara n'amakarita y'imibare						
Inyandiko n'ibitabo byifashishijwe	Igitabo cy'Umunyeshuri, icy'Umwarimu n'Integanyanyigisho y'Isomo ry'Imibare ikiciro cya mbere cy'Amashuri Abanza.						

Ibice by'isomo + Igihe	Gusobanura muri make ibikorwa by'umwarimu n'iby'umunyeshuri		Ubushobozi n'ingingo nsanganyamasomo (Andika ubushobozi + igisobanuro kigufi kigaragaza)				
	–	Guha abanyeshuri imfashanyigisho, kubashyira mu matsinda no kugenzura ibikorwa bikorerwa mu matsinda.					
	–	Abanyeshuri buzuzwa imibare mu mbonerahamwe y'ibara umwumwe.					
	–	Abanyeshuri basoma imibare banditse mu mbonerahamwe y'ibara cyangwa iri ku makarita n'impapuro nini.					
Intangiriro Iminota 5	Ibikorwa by'umwarimu		Ibikorwa by'umunyeshuri				
	–	Gutanga imyitozo inyuranye yo gusoma no kwandika imibare itarengeje 1 000	– Kwitegereza agasoma imibare yanditse ku makarita akayandika mu mibare no mu magambo				
			Ubushobozi umunyeshuri yunguka muri iri somo. – Gushyikirana n'abandi igihe akoreye mu matsinda cyangwa afatanyaga n'abandi.				

Isomo nyirizina Iminota 30	Igikorwa cya 1 - Gutanga imfashanyigisho abanyeshuri bari bukoresha nk'amakarita y'imibare - Gusobanurira abanyeshuri igikorwa bagiyeye gukora. - Gushushanya imbonerahamwe y'ibara ku kibaho no gusaba abanyeshuri kuyitegereza no kuyuzuza. - Kwandika imibare 10 ushaka iri hagati ya 1 000 na 2 000 ku kibaho ugasaba abanyeshuri batandukanye bakajya kuyandika muri ya mbonerahamwe y'ibara. - Gusaba abanyeshuri gusoma ya mibare umwumwe baranguruye ijwi aho bayisoma nabi ukabakosora. - Kubwira buri munyeshuri wasomye umubare akawandika mu magambo ku ruhande rw'imbonerahamwe y'ibara.	Igikorwa cya 1 - Kumva amabwiriza y'ibyo asabwa gukora byaba bidasobanutse agasobanura mbere yo gukora. - Gufata imfashanyigisho no gukurikiza amabwiriza y'ibyo asabwa gukora biganisha ku isomo rishya. - Kwitegereza uko umwarimu ashushanya imbonerahamwe y'ibara ku kibaho. - Kwandika imibare 1 256, 1 589, 1 876, 1 943 mu mbonerahamwe y'ibara iri ku kibaho nyuma mu makayi yabo y'imyitozo. - Gusoma no kwandika imibare (1 256, 1 589, 1 876, 1 943) yashyizwe mu mbonerahamwe mu mibare, mu magambo no mu makayi y'imyitozo.	- Gukoresha imvugo isobanutse igihe asoma imibare - Guhanga udushya akora udukarita twanditseho imibare. - Kwikemurira ibibazo mu gihe akoresha imibare neza mu buzima busanzwe. - Ubumenyi ku ngingo nsanganyamasomo buri muri iri somo n'uko bugerwaho - Ubwuzanyane bw'ibitsina byombi bugaragara igihe abanyeshuri bakora imyitozo nta vangura. - Uburezi budaheza bugaragara mu guha abanyeshuri bose amahirwe yo kwiga angana. - Gufata neza ibidukikije bugaragara igihe abanyeshuri bose basukura aho bakorera cyangwa bafata neza imfashanyigisho bakoresheje. - Umuco w'amahoro ugaragara mu bikorwa byo mu matsinda aho umunyeshuri akorana na bagenzi be mu bwumvikane nta we abangamiye.
	Igikorwa cya 2 - Gushyira abanyeshuri mu matsinda no kubasobanurira igikorwa bagiyeye gukora. - Guha buri tsinda amakarita y'imibare yanditseho imibare iri hagati ya 1 000 na 2 000.	Igikorwa cya 2 - Kujiya mu matsinda buri wese yashyizwemo no kubahiriza amabwiriza bahawe n'umwarimu. - Kuganirira mu matsinda afatany n'abandi kuzuza imbonerahamwe y'ibara no gusoma imibare (1 736, 1 678, 1 429, 1 385) bagenda bashyiramo.	

	- Kuba hafi ya buri tsinda agenzura ko rishyira mu bikorwa amabwiriza ryahawe. - Gusaba buri tsinda guca imbonerahamwe y'ibara bakayandikamo iyo mibare. - Gukurikirana uko buri tsinda risobanura ibyo ryakoze n'uko bagenzi babo babakosora. - Guha buri tsinda umwanya wo gusobanura ibyo ryakoze imbere ya bagenzi babo.	- Gukurikira badasakuza ibikorwa bya bagenzi babo ndetse bakagira uruhare mu gutanga ibitekerezo. - Kugira uruhare rufatika mu itsinda yashyizwemo afatanywa n'abandi gukora umurimo bahawe mu itsinda. - Gusobanura ibyo bakoze mu itsinda. - Guca imbonerahamwe y'ibara akayandikamo umubare umwe yishakiye uri hagati ya 1 000 na 2 000 yarangiza akawusoma ndetse akanawandika mu magambo. - Kwandika umubare yishakiye, uri hagati ya 1 000 na 2 000 ku gakarita.	Umuco wo gukoresha neza umutungo ugaragara mu myitozo isaba abanyeshuri gucunga neza imfashanyigisho no gukora gahunda y'ibikorwa birinda gusesagura.
	Igikorwa cya 3 - Guha abanyeshuri imyitozo yo kwandika imibare iri hagati ya 1 000 na 2 000 mu mibare no mu magambo. - Kugenzura uko buri munyeshuri yandika imibare iri hagati ya 1 000 na 2 000 mu mbonerahamwe y'ibara mbere yo kuyandika mu mibare no mu magambo.	Igikorwa cya 3 - Guteka amatwi akumva ibyo agiye gukora byaba bidasobanutse akabisobanura. - Gukora imyitozo atibeshya no kugira uruhare mu ikosora rusange. - Gukora imyitozo ijyanye n'ikiciro arimo kugira ngo yumve neza ikigwa kandi adasigaye cyangwa ngo agende inyuma y'abandi.	

Umusozo w'isomo: Ikomatanya Iminota 5 Isuzuma Iminota 5	– Kuyobora abanyeshuri mu kuvuga muri make uko baca imbonerahamwe y'ibara; uko bandika n'uko basoma imibare n'amategeko bakurikiza. – Guha abanyeshuri imyitozo yo kwandika imibare mu mbonerahamwe y'ibara, kuyisoma baranguruye ijwi no kuyandika mu mibare no mu magambo (iri ku rupapuro rwa 3 mu gitabo cy'umunyeshuri). – Kubaha umukoro wo kubaza buri wese ugize umuryango we umwaka yavutse maze bakayandika mu mibare no mu magambo.	– Kuvuga muri make uko baca imbonerahamwe y'ibara; uko bandika n'uko basoma imibare n'amategeko bakurikiza. – Gukora imyitozo no kugira uruhare mu ikosora. – Gukora neza umukoro yahawe no kubwira abo bigana uko yawukoze ndetse n'ibisubizo byawo .	
Kwisuzuma (Umurezi)	Nshingiye ku bikorwa by'abanyeshuri n'isuzuma nabakoresheje ndamenya niba isomo ryagenze neza cyangwa nabi. Ninsanga ritagenze neza ndafata ingamba zo gukosora ibitagenze neza zirimo kuba narisubiramo. Ndashima abanyeshuri bange mu rwego rwo kubashishikariza kugira ishyamba no kwiga babikunze .		

Umutwe wa 1: Imibare kuva kuri 0 kugera ku 2 000

1.1 Ubushobozi bw'ingenzi bugamijwe

Kubara, gusoma, kwandika, gutondeka, kugereranya, guteranya, gukuramo, gukuba no kugabanya imibare ishyyitse kuva kuri 0 kugera ku 2 000.

1.2 Ibyizwe mbere bifitanye isano n'uyu mutwe

Kubara, gusoma, kwandika, gutondeka, kugereranya, guteranya, gukuramo, gukuba no kugabanya imibare ishyyitse kuva kuri 0 kugera ku 1 000.

1.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho.

- *Uburinganire n'ubwuzuzanye* bugaragara igihe abahungu n'abakobwa bose bakora imyitozo nta vangura.
- *Uburezi budaheza* bugaragara mu guha abanyeshuri bose amahirwe angana yo kwiga.
- *Gufata neza ibidukikije* bugaragara igihe abanyeshuri bose basukura aho bakorera cyangwa iyo bafata neza imfashanyigisho bakoresheje.
- *Umuko wo gukoresha neza umutungo* ugaragara mu myitozo isaba abanyeshuri gucunga neza imfashanyigisho no gukora gahunda y'ibikorwa birinda gusesagura.
- *Umuko w'amahoro* ugaragara mu bikorwa byo mu matsinda aho umunyeshuri akorana na bagenzi be mu bwumvikane nta we abangamiye.

1.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe

- *Gushyikirana n'abandi* igihe umunyeshuri akorera mu matsinda cyangwa afatanye n'abandi.
- *Gukoresha imvugo isobanutse* igihe asoma imibare.
- *Guhanga udushya* iyo umunyeshuri akora udukarita twanditseho imibare.
- *Kwikemurira ibibazo* mu gihe akoresha neza imibare mu buzima busanzwe.
- *Kugira amashyushyu*, yo guhora yiyungura ubumenyi mu mibare.

1.5 Amagambo umunyeshuri yunguka muri uyu mutwe

Ikinyabumwe (b): ni umwanya w'umubare ubanza iburyo.

Ibinyacumi (c): ni umwanya w'umubare ukurikira ibinyabumwe uva iburyo ujya ibumoso.

Ibinyajana (j): ni umwanya w'umubare ukurikira ibinyacumi uva iburyo ujya ibumoso.

Ibinyagihumbi (h): umwanya w'umubare ukurikira ibinyajana uva iburyo ujya ibumoso.

Gusesengura imibare: kugaragaza umwanya wa buri mubarwa ugize umubare.

Gutondeka imibare: gukurikiranya imibare uko irutana waba uhera ku munini ujya ku muto cyangwa uhera ku muto ujya ku munini.

Igiteranyo: umubare utangwa n'iteranya ry'indi mibare ibiri cyangwa myinshi.

Ikinyuranyo: umubare utangwa n'ikuramo ry'indi mibare ibiri cyangwa myinshi.

Igikubo: umubare utangwa n'ikuba ry'indi mibare ibiri cyangwa myinshi.

Igikubwa: umubare bakuba n'undi kugira ngo babone igikubo.

Igikuba: umubare bakubisha undi kugira ngo babone igikubo.

Ikigabanyo: umubare utangwa n'igabanya ry'indi mibare ibiri cyangwa myinshi.

Ikigabanya: umubare bagabanyisha undi ngo babone ikigabanyo.

Ikigabanywa: umubare bagabanya ngo babone ikigabanyo.

1.6 Uburyo bwo gusesengura ikibazo nyamukuru

- Umwarimu asomesha agakuru kajyanye n'ikibazo cy'umuhinzi utajya umenya ingano y'amashu yasaruye.
- Asaba abanyeshuri kukaganiraho no kugatangaho ibitekerezo bagaragaza impamvu zituma abahinzi batamenya ingano y'ibyo basarura n'ubumenyi bahabwa mu mibare kugira ngo icyo kibazo gikemuke.
- Abasobanurira ko ibisubizo nyabyo bazajya babibona mu masomo bagiye kwiga muri uyu mutwe.

1.7 Uko umwarimu yita by'umwihariko ku bafite ibibazo byihariye yigisha uyu mutwe

- Abafata bitinze bategurire imyitozo usanga mu gitabo cy'umwarimu; yoroshye ugereranyije n'iy'abandi .
- Abafite ubumuga bw'ingingo banza umenye izo ari zo ubategurire imfashanyigisho zihariye n'imyitozo wagenera buri wese .
- Abafite impano yo kumva no gukora vuba cyane bahe imyitozo usanga mu gitabo cy'umwarimu, ituma batarangaza abandi.

1.8 Ibyigwa biri muri uyu mutwe

	Ibyigwa	Umubare w'amasomo: 22
1	Gusoma no kwandika imibare kuva kuri 0 kugera ku 2 000	2
2	Gusesengura imibare kuva kuri 0 kugera ku 2 000	1
3	Gutondeka imibare kuva kuri 0 kugera ku 2 000	1
4	Kugereranya imibare kuva kuri 0 kugera ku 2 000	1
5	Guteranya imibare igiteranyo kitarenga 2 000	4
6	Gukuramo imibare itarenze 2 000	4
7	Gukuba imibare igikubo kitarenze 2 000	4
8	Kugabanya imibare itarenga 2 000	3
9	Isuzuma risoza umutwe wa 1	2

1.9 Imyigishirize ya buri kigwa

1.9.1 Ikigwa cya mbere: Gusoma no kwandika imibare kuva kuri 0 kugera ku 2 000 (Amasomo 2)

a. Intego

Ubumenyi

Kuvuga imvugo yumvikana igihe asoma imibare kuva kuri 0 kugera 2000 mu mibare no mu magambo.

Ubumenyingiro

Gusoma no kwandika neza imibare itarenze 2000 aho ariho hose.

Ubukeshya

Kugaragaza gahunda mu bikorwa bye bya buri munsu.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gusoma no kwandika imibare itarengeje 1 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo

c. Imfashanyigisho

- Imbonerahamwe y'ibara .
- Amakarita y'imibare ari mu mabara atandukanye.
- Ibibarisho n'utubarisho dutandukanye.

d. Ibikorwa by'imyigire n'imyigishirize

Gusoma no kwandika imibare

- Guhereza abanyeshuri amakarita y'imibare iri hagati ya 1000 na 2000 maze buri wese agasoma umubare uri ku ikarita yahawe ndetse akanawandika mu magambo mu ikayi ye y'imyitoto.
- Gushyira abanyeshuri mu matsinda maze ukabaha amakarita ariho imibarewa 0, 1, 2, 3, 4, 5, 6, 7, 8, 9. Bakajya bakora umubare ugizwe n'imibarewa ine uri hagati ya 1 000 na 2 000 nyuma bakawusoma ndetse bakanawandika mu magambo.
- Gushyira amakarita y'imibare iri hagati ya 1 000 na 2 000 mu gakarito maze buri munyeshuri akajya gutombora ikarita iriho umubare yamara kuyitombora agasoma umubare uriho ndetse akanawandika mu magambo.

e. Ikomatanywa

Kuyobora abanyeshuri mu kuvuga muri make uko baca imbonerahamwe y'ibara, uko bandika n'uko basoma imibare n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitoto iri ku rupapuro rwa 3 mu gitabo cy'umunyeshuri yo kwandika imibare mu mbonerahamwe y'ibara, kuyisoma baranguruye ijwi no kuyandika mu mibare no mu magambo.

g. Ibisubizo by'imyitoto n'ibikorwa ijyanye n'iki kigwa

Gusoma imibare kuva kuri 0 kugeza ku 2 000

Igikorwa cya 3 kiri ku rupapuro rwa 8 mu gitabo cy'umunyeshuri

- 1) 1 022, 1 023, 1 024, 1 025, 1 026, 1 027, 1 028, 1 029
- 1) 1 042, 1 043, 1 044, 1 045, 1 046, 1 047, 1 048, 1 049
- 3) 1 062, 1 063, 1 064, 1 065, 1 066, 1 067, 1 068
- 4) 1 082, 1 083, 1 084, 1 085, 1 086, 1 087, 1 088, 1 089
- 5) 1 092, 1 093, 1 094, 1 095, 1 096, 1 097, 1 098

Reka nisuzume iri ku rupapuro rwa 2 mu gitabo cy'umunyeshuri

- a) 1 234, 1 243, 1 324, 1 342, 1 423, 1 432
- b) 1 567, 1 576, 1 657, 1 675, 1 756, 1 765
- c) 1 089, 1 098, 1 809, 1 890, 1 908, 1 980

Nsuzuma ngusuzume iri ku rupapuro rwa 2 mu gitabo cy'umunyeshuri

Ibisubizo biratandukanye bitewe n'umubare buri munyeshuri azatombora.

Kwandika imibare kuva kuri 0 kugera ku 2 000

Igikorwa kiri ku rupapuro rwa 2 mu gitabo cy'umunyeshuri

- 1) – 1 974: Igihumbi magana kenda na mirongo irindwi na kane
– 1 947: Igihumbi magana kenda na mirongo ine na karindwi
– 1 794: Igihumbi magana arindwi mirongo ikenda na kane
– 1 749: Igihumbi magana arindwi mirongo ine n'ikenda
– 1 497: Igihumbi magana ane mirongo ikenda na karindwi
- 2) – 1 687: Igihumbi magana atandatu mirongo inani na karindwi
– 1 678: Igihumbi magana atandatu mirongo irindwi n'umunani
– 1 876: Igihumbi magana inani na mirongo irindwi na gatandatu
– 1 867: Igihumbi magana inani na mirongo itandatu na karindwi
– 1 786: Igihumbi magana arindwi na mirongo inani na gatandatu
– 1 768: Igihumbi magana arindwi na mirongo itandatu n'umunani
- 3) – 1 892: Igihumbi magana inani mirongo ikenda na kabiri
– 1 829: Igihumbi magana inani makumyabiri n'ikenda
– 1 928: Igihumbi magana kenda na makumyabiri n'umunani
– 1 982: Igihumbi magana kenda na mirongo inani na kabiri
– 1 289: Igihumbi magana abiri na mirongo inani n'ikenda
– 1 298: Igihumbi magana abiri na mirongo ikenda n'umunani
- 4) – 1 957: Igihumbi magana kenda na mirongo itanu na karindwi.
– 1 975: Igihumbi magana kenda mirongo irindwi na gatanu.
– 1 597: Igihumbi magana atanu mirongo ikenda na karindwi.
– 1 579: Igihumbi magana atanu mirongo irindwi n'ikenda.
– 1 759: Igihumbi magana arindwi mirongo itanu n'ikenda.
– 1 795: Igihumbi magana arindwi mirongo ikenda na gatanu
– 1 100: Igihumbi n'ijana.
– 1 300: Igihumbi na magana atatu.
– 1 500: Igihumbi na magana atanu.
– 1 700: Igihumbi na magana arindwi.
– 1 900: Igihumbi na magana kenda.

Umwitozo uri ku rupapuro rwa 3 mu gitabo cy'umunyeshuri

- a) 1 100: Igihumbi n'ijana 1 300: Igihumbi magana atatu
1 500: Igihumbi magana atatu 1 700: Igihumbi magana arindwi
1 900: Igihumbi magana kenda.
- b) 300: Magana atatu 700: Magana arindwi
1 100: Igihumbi n'ijana 1 500: Igihumbi magana atanu
1 900: Igihumbi magana kenda

- c) 250: Magana abiri na mirongo itanu
 650: Magana
 1 050: Igihumbi
 1 450: Igihumbi magana ane na mirongo itanu
 1 850: Igihumbi magana inani na mirongo itanu

Reka nisuzume iri ku rupapuro rwa 3 mu gitabo cy’umunyeshuri

- a) – 1 991: Igihumbi magana kenda mirongo ikenda na rimwe
 – 1 992: Igihumbi magana kenda mirongo ikenda na kabiri
 – 1 993: Igihumbi magana kenda mirongo ikenda na gatatu
 – 1 994: Igihumbi magana kenda mirongo ikenda na kane
 – 1 995: Igihumbi magana kenda mirongo ikenda na gatanu
 – 1 996: Igihumbi magana kenda mirongo ikenda na gatandatu
 – 1 997: Igihumbi magana kenda mirongo ikenda na karindwi
 – 1 998: Igihumbi magana kenda mirongo ikenda na umunani
 – 1 999: Igihumbi magana kenda mirongo ikenda na ikenda
- b) – 1 241: Igihumbi magana abiri mirongo ine na rimwe
 – 1 242: Igihumbi magana abiri mirongo ine na kabiri
 – 1 243: Igihumbi magana abiri mirongo ine na gatatu
 – 1 244: Igihumbi magana abiri mirongo ine na kane
 – 1 245: Igihumbi magana abiri mirongo ine na gatanu
 – 1 246: Igihumbi magana abiri mirongo ine na gatandatu
 – 1 247: Igihumbi magana abiri mirongo ine na karindwi
 – 1 248: Igihumbi magana abiri mirongo ine n’umunani
 – 1 249: Igihumbi magana abiri mirongo ine n’ikenda
- c) – 1 591: Igihumbi magana atanu mirongo ikenda na rimwe
 – 1 592: Igihumbi magana atanu mirongo ikenda na kabiri
 – 1 593: Igihumbi magana atanu mirongo ikenda na gatatu
 – 1 594: Igihumbi magana atanu mirongo ikenda na kane
 – 1 595: Igihumbi magana atanu mirongo ikenda na gatanu
 – 1 596: Igihumbi magana atanu mirongo ikenda na gatandatu
 – 1 597: Igihumbi magana atanu mirongo ikenda na karindwi
 – 1 598: Igihumbi magana atanu mirongo ikenda na umunani
 – 1 599: Igihumbi magana atanu mirongo ikenda n’ikenda
- d) – 1 921: Igihumbi magana kenda makumyabiri na rimwe.
 – 1 922: Igihumbi magana kenda makumyabiri na kabiri.
 – 1 923: Igihumbi magana kenda makumyabiri na gatatu.
 – 1 924: Igihumbi magana kenda makumyabiri na kane.

- 1 925: Igihumbi magana kenda makumyabiri na gatanu
- 1 926: Igihumbi magana kenda makumyabiri na gatandatu.
- 1 927: Igihumbi magana kenda makumyabiri na karindwi.
- 1 928: Igihumbi magana kenda makumyabiri n'umunani.
- 1 929: Igihumbi magana kenda makumyabiri n'ikenda.

Nsuzuma ngusuzume iri ku rupapuro rwa 3 mu gitabo cy'umunyeshuri

Ibisubizo biratandukanye kuko hashobora gukorwa imibare myinshi cyane. Reba ko buri munyeshuri akora nibura imibare 10 iri hagati ya 1 000 na 2 000.

Urugero: 1 739, 1 793, 1 379...

Imyitozo iri ku rupapuro rwa 3 mu gitabo cy'umunyeshuri

- 1) a) Igihumbi magana kenda na makumyabiri na kane
b) 1 319 c. 1 874
d) Igihumbi magana ane mirongo ikenda n'ikenda
- 2) – 1 589: Igihumbi magana atanu mirongo inani n'ikenda.
– 1 598: Igihumbi magana atanu mirongo kenda n'umunani.
– 1 859: Igihumbi magana inani mirongo itanu n'ikenda.
– 1 895: Igihumbi magana inani mirongo kenda na gatanu.
– 1 958: Igihumbi magana kenda na mirongo itanu n'umunani.
– 1 985: Igihumbi magana kenda na mirongo inani na gatanu.

3)

a)	1 674: Igihumbi magana atandatu mirongo irindwi na kane	d)	Ibihumbi bibiri: 2 000
b)	Igihumbi magana kenda na gatanu: 1 905	e)	1 719: Igihumbi magana arindwi na cumi n'ikenda
c)	1 395: Igihumbi magana atatu mirongo kenda na gatanu	f)	Igihumbi magana atatu na mirongo ine na karindwi: 1 347

1.9.2 Ikigwa cya kabiri: Gusesengura imibare kuva kuri 0 kugera ku 2 000 (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa umwanya wa buri mubarwa ku mubare ugizwe n'imibarwa ine.

Ubumenyigiro

Gusesengura imibare itarenze 2 000 mo ibinyabumwe, ibinyacumi, ibinyajana n'ibinyagihumbi.

Ubukasha

Gutekereza neza kandi vuba.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gusesengura imibare itarengeje 1 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo abaha imfashanyigisho n'imyitozo byihariye.

c. Imfashanyigisho

- Imbonerahamwe y'ibara.
- Amakarita y'imibare ari mu mabara atandukanye.
- Ibibarisho n'utubarisho dutandukanye.

d. Ibikorwa by'imyigire n'imyigishirize

Gusaba abanyeshuri guca imbonerahamwe y'ibara bakandikamo imibare bahawe bakayisesengura cyangwa bakagaragaza imibare yasesenguwe.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko baca imbonerahamwe y'ibara, uko basesengura imibare n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 5 mu gitabo cy'umunyeshuri yo kwandika imibare mu mbonerahamwe y'ibara no kuyisesengura.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gusengura imibare kuva kuri 0 kugera ku 2 000

Igikorwa cya 2 kiri ku rupapuro rwa 4 mu gitabo cy'umunyeshuri

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
1	4	5	6
1	2	3	9
1	6	9	9
1	4	7	9
1	9	5	3
1	9	7	4

Reka nisuzume iri ku rupapuro rwa 5 mu gitabo cy'umunyeshuri

a) 1 795 b) 1 999 c) 1 649 d) 1 395 e) 1 957 f) 1 295

Imyitozo ku rupapuro rwa 5 mu gitabo cy'umunyeshuri

a) 1 456: h 1 j 4 c 5 b 6 d) 1 479: h 1 j 4 c 7 b 9
b) 1 996: c 9 h 1 b 6 j 9 e) 1 197: c 9 j 1 h 1 b 7
c) 1 759: j 7 b 9 h 1 c 5 f) 1 597: j 5 b 7 h 1 c 9

Igikorwa cya 4 kiri ku rupapuro rwa 5 mu gitabo cy'umunyeshuri

- a) h 1 j 2 c 6 b 5 c) h 1 j 6 c 4 b 5 e) h 1 j 9 c 9 b 7
b) h 1 j 7 c 9 b 9 d) h 1 j 4 c 3 b 6 f) h 1 j 9 c 5 b 6

Nsuzuma ngusuzume iri ku rupapuro rwa 6 mu gitabo cy'umunyeshuri

- a) 1 945 b) 1 959 c) 1 973

Imyitozo iri ku rupapuro rwa 6 mu gitabo cy'umunyeshuri

- 1) a) Ibinyabumwe c) Ibinyajana e) Ikinyagihumbi
 b) Ibinyacumi d) Ibinyacumi f) Ibinyacumi
2) a) 1 996 b) 1 997 c) 1 799 d) 1 584
3) a) h 1 j 7 c 6 b 5 c) h 1 j 9 c 5 b 6 e) h 1 j 5 c 6 b 4
 b) h 1 j 6 c 7 b 2 d) h 1 j 2 c 5 b 4 f) h 1 j 7 c 1 b 3
4) a) 1 234 b) 1 371 c) 1 796

1.9.3 Ikigwa cya gatatu: Kugereranya imibare kuva kuri 0 kugera ku 2 000 (Isomo 1)

a. Intego

Ubumenyi

Kumenya ibyinshi, ibike n'ibingana bakoresheje imibare itarenze 2 000.

Ubumenyigiro

Kugereranya imibare itarenze 2 000 bakoresha ibimenyetso by'igereranya <, > , cyangwa =

Ubukeshya

Gutekerezwa neza kandi vuba.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo kugereranya imibare itarengeje 1 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo abaha imfashanyigisho n'imyitozo byihariye.

c. Imfashanyigisho

- Imbonerahamwe y'ibara .
- Amakarita y'imibare ari mu mabara atandukanye.
- Ibibarisho n'utubarisho dutandukanye.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe y'ibara bakandikamo imibare bahawe bakayigereranya bakoresha ibimenyetso $<$, $>$ na $=$
- Guha abanyeshuri amakarita y'imibare iri hagati ya 1 000 na 2 000 n'andi yanditseho ibimenyetso by'igereranya bakajya bafata imibare ibiri bihitiyemo bakayigereranya.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uburyo bubiri bakoresha mu kugereranya imibare n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 9 mu gitabo cy'umunyeshuri yo kugereranya imibare.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Kugereranya imibare 2 itarenze 2 000

Igikorwa cya 2 kiri ku rupapuro rwa 7 mu gitabo cy'umunyeshuri

- | | | |
|------------------|------------------|------------------|
| a) 1 356 < 1 536 | c) 1 037 = 1 037 | e) 1 206 < 1 267 |
| b) 1 905 > 1 805 | d) 1 709 < 1 790 | f) 1 670 = 1 670 |

Igikorwa cya 3 kiri ku rupapuro rwa 7 mu gitabo cy'umunyeshuri

- | | | |
|------------------|------------------|------------------|
| a) 1 329 < 1 408 | c) 1 429 = 1 249 | e) 1 206 < 1 216 |
| b) 1 736 > 1 763 | d) 1 709 = 1 709 | f) 1 670 < 1 671 |

Igikorwa cya 4 kiri ku rupapuro rwa 8 mu gitabo cy'umunyeshuri

- | | |
|------------------|------------------|
| a) 1 311 < 1 515 | c) 1 140 < 1 834 |
| b) 1 180 < 1 798 | d) 1 084 = 1 084 |

Reka nisuzume iri ku rupapuro rwa 8 mu gitabo cy'umunyeshuri

- | | | |
|------------------|------------------|------------------|
| a) 1 421 > 1 395 | c) 1 421 < 1 999 | e) 1 421 < 1 432 |
| b) 1 999 > 1 432 | d) 1 395 < 1 432 | f) 1 999 > 1 432 |

Igikorwa cya 5 kiri ku rupapuro rwa 9 mu gitabo cy'umunyeshuri

- | | | |
|-------------------------------|--|-----------------|
| a) Muhizi afite amajwi 799 | d) Mutayomba afite amajwi 1 234 | |
| b) Mutesi afite amajwi 1 259 | e) Ufite amajwi make ni Muhizi (799) | |
| c) Kayitesi afite amajwi 1005 | f) Ufite amajwi menshi ni Mutesi (1 259) | |
| g) • 1 005 < 1 234 | • 1 005 < 1259 | • 1 234 < 1 259 |
| • 1 005 > 799 | • 1 234 > 799 | • 7 99 < 1 259 |

Imyitozo iri ku rupapuro rwa 9 mu gitabo cy'umunyeshuri

- | | | |
|------------------|-----------------|------------------|
| a) 1 905 = 1 905 | b) 1 714 < 1797 | c) 1 926 > 1 673 |
| d) 1 532 > 1 325 | e) 1 647 = 1647 | f) 1 351 < 1 513 |

1.9.4 Ikigwa cy'a kane: Gutondeka imibare kuva kuri 0 kugera ku 2 000 (Isomo 1)

a. Intego

Ubumenyi

Kumenya iby'inshi n'ibike bakoresheje imibare itarenze 2 000.

Ubumenyigiro

Gutondeka imibare itarenze 2 000 kuva ku muto ujya ku munini no kuva ku munini ujya ku muto.

Ubukeshya

Gutekereza neza kandi vuba .

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gutondeka imibare itarengeje 1 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo abaha imfashanyigisho n'imyitozo byihariye.

c. Imfashanyigisho

- Imbonerahamwe y'ibara
- Amakarita y'imibare ari mu mabara atandukanye
- Ibibarisho n'utubarisho dutandukanye

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe y'ibara bakandikamo imibare bahawe bakayitondeka bakurikiza uko irutana (Kuva ku muto ujya ku munini cyangwa kuva ku munini ujya ku muto).
- Guha abanyeshuri amakarita y'imibare iri hagati ya 1 000 na 2 000 bakajya bayatondeka bakurikiza uko irutana (Kuva ku muto ujya ku munini cyangwa kuva ku munini ujya ku muto).

e. Ikomatanyaribizwe

Kuyobora abanyeshuri mu kuvuga muri make uburyo bubiri bakoresha batondeka imibare n'amategako bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri mu gitabo cy'umunyeshuri yo gutondeka imibare.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'uyu mutwe

Gutondeka imibare kuva kuri 0 kugera kuri 2000

Gutondeka imibare uva ku muto ujya ku munini

Igikorwa cyo kiri ku rupapuro rwa 10 mu gitabo cy’umunyeshuri

- a) 1 395, 1 593, 1 953 b) 1 136, 1 316, 1 613

Nsuzuma ngusuzume iri ku rupapuro rwa 10 mu gitabo cy’umunyeshuri

A) 1 569, 1 596, 1 659, 1 695, 1 956, 1 965

B) 1 457, 1 475, 1 547, 1 574, 1 745, 1 754

Gutondeka imibare uva ku munini ujya ku muto

Igikorwa kiri ku rupapuro rwa 11 mu gitabo cy’umunyeshuri

- a) 1 840, 1 084, 1 048 b) 1 632, 1 326, 1 236

Reka nisuzume iri ku rupapuro rwa 11 mu gitabo cy’umunyeshuri

1 976, 1 967, 1 919, 1 796, 1 769, 1 697, 1 679

Nsuzuma ngusuzume iri ku rupapuro rwa 11 mu gitabo cy’umunyeshuri

Ibisubizo biratandukanye bitewe ni uko buri munyeshuri aziyandikira imibare yishakiye akanayitondeka.

1.9.5 Ikigwa cya gatanu: Guteranya imibare igiteranyo kitarenga 2 000 (Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa uko bateranya imibare batabitsa cyangwa babitsa igiteranyo ntikirenge 2 000

Ubumenyigiro

Guteranya batabitsa no guteranya babitsa igiteranyo ntikirenge 2 000 no kubikoresha mu buzima bya buri muni.

Ubukeshya

Kwigirira ikizere no gukora cyane.

b. Imyitozo y’isubiramo / Intangiriro

- Imyitozo inyuranye yo guteranya imibare itarengeje 1 000 iri mu gitabo cy’umunyeshuri.
- Gushushanya imbonerahamwe y’ibara ku kibaho no guha abanyeshuri amakarita y’imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo abaha imfashanyigisho n’imyitozo byihariye.

c. Imfashanyigisho

- Imbonerahamwe y'ibara
- Amakarita y'imibare ari mu mabara atandukanye
- Ibibarisho n'utubarisho dutandukanye

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe y'ibara bakandikamo imibare bahawe bakayiteranya bahereye iburyo bajya ibumoso.
- Kuyobora abanyeshuri mu gikorwa cyo guteranya imibare buhagazi.
- Guha abanyeshuri amakarita y'imibare iri hagati ya 1 000 na 2 000 n'amakarita ariho ibimenyetso byo guteranya bakajya bateranya imibare yanditseho maze bagahitamo ikarita iriho igiteranyo cyayo.
- Ku mahurizo yo guteranya banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatany ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko:

- Bateranya babitsa cyangwa batabitsa n'amategeko bakurikiza.
- Bakora amahurizo arimo guteranya imibare igiteranyo kitarenga 2 000.

f. Isuzuma

Guha abanyeshuri imyitozo n'amahurizo biri ku rupapuro rwa 13 na 15 mu gitabo cy'umunyeshuri byo guteranya imibare igiteranyo kitarenga 2 000.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Guteranya imibare igiteranyo cyayo kitarenze 2 000

Iteranya ritabitsa ry'imibare ibiri igiteranyo cyayo kitarenga 2 000

Igikorwa kiri ku rupapuro rwa 12 mu gitabo cy'umunyeshuri

a) 1 979 b) 1 999 c) 1 939 d) 1 989 e) 1 998 f) 1 796

Nsuzuma ngusuzume iri ku rupapuro rwa 12 mu gitabo cy'umunyeshuri

- $1\,124 + 471 = 1\,595$ • $1\,542 + 437 = 1\,979$ • $1\,005 + 982 = 1\,987$
- $1\,321 + 678 = 1\,999$ • $1\,234 + 625 = 1\,859$ • $1\,213 + 785 = 1\,998$
- $1\,252 + 717 = 1\,969$

Reka nisuzume iri ku rupapuro rwa 13 mu gitabo cy'umunyeshuri

a) 1 997 b) 1 909 c) 1 999 d) 1 999 e) 1 978 f) 1 693

Imyitozo iri ku rupapuro rwa 13 mu gitabo cy'umunyeshuri

- a) 1 677 b) 1 899 c) 1 978 d) 1 996 e) 1 890

Iteranya ribitsa ry'imibare igiteranyo cyayo kitarenga 2 000**Igikorwa kiri ku rupapuro rwa 14 mu gitabo cy'umunyeshuri**

- a) 1 733 b) 1 966 c) 2 000 d) 1 996

Nsuzuma ngusuzume kiri ku rupapuro rwa 14 mu gitabo cy'umunyeshuri

- $924 + 897 = 1\,821$ • $642 + 858 = 1\,500$ • $952 + 879 = 1\,831$
- $905 + 997 = 1\,902$ • $721 + 999 = 1\,720$
- $834 + 789 = 1\,623$ • $813 + 979 = 1\,792$

Reka nisuzume iri ku rupapuro rwa 14 mu gitabo cy'umunyeshuri

- a) 1 955 c) 1 992 e) 1 654
b) 1 994 d) 1 941 f) 1 715

Imyitozo iri ku rupapuro rwa 15 mu gitabo cy'umunyeshuri

- a) 1 851 c) 1 894 e) 1 654
b) 1 472 d) 1 920 f) 1 933

Amahurizo yo guteranya imibare igiteranyo cyayo kitarenze 2000**Nsuzuma ngusuzume iri ku rupapuro rwa 15 mu gitabo cy'umunyeshuri**

- 1) Umubare w'amazu y'ikitegererezo yubatse mu mug: $754 + 969 = 1\,723$
- 2) Umubare w'abacuruzi bose hamwe: $1\,006 + 979 = 1\,985$
- 3) Umubare w'abanyeshuri biga muri iryo shuri: $997 + 967 = 1\,964$
- 4) Umubare w'abivuriye muri ibyo bitabo: $799 + 356 + 795 = 1\,950$

Reka nisuzume iri ku rupapuro rwa 16 mu gitabo cy'umunyeshuri

- 1) Umubare w'abacuruzi bari muri iryo soko: $976 + 779 = 1\,755$
- 2) Umubare w'abaturage batuye mu kagari: $357 + 337 + 731 = 1\,425$
- 3) Umubare w'abivuriye muri ibyo bitaro: $969 + 656 + 245 = 1\,870$
- 4) Umubare w'amazu ari muri uwo murenge: $675 + 199 + 992 = 1\,866$

1.9.6 Ikigwa cya gatandatu: Gukuramo imibare itarenze 2 000 (Amasomo 4)**a. Intego*****Ubumenyi***

Gusobanukirwa uko bakuramo batira cyangwa badatira imibare itarenze 2000.

Ubumenyigiro

Gukuramo batira cyangwa badatira imibare itarenze 2 000 no kubikoresha mu buzima busanzwe.

Ubukeshya

- Gutekereza neza kandi vuba.
- Kwigirira ikizere no gukora cyane.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gukuramo imibare itarengeje 1 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo abaha imfashanyigisho n'imyitozo byihariye.

c. Imfashanyigisho

- Imbonerahamwe y'ibara
- Amakarita y'imibare ari mu mabara atandukanye
- Ibibarisho n'utubarisho dutandukanye.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe y'ibara bakandikamo imibare bahawe bakayikuramo bahereye iburyo bajya ibumoso.
- Kuyobora abanyeshuri mu gikorwa cyo gukuramo imibare buhagazi.
- Guha abanyeshuri amakarita y'imibare iri hagati ya 1 000 na 2 000 n'amakarita ariho ibimenyetso byo gukuramo bakajya bakuramo imibare yanditseho maze bagahitamo ikarita iriho ikinyuranyo cyayo.
- Ku mahurizo yo gukuramo banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatany ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko:

- Bakuramo imibare batira n'amategeko bakurikiza.
- Bakora amahurizo arimo gukuramo imibare itarenze 2 000.

e. Isuzuma

Guha abanyeshuri imyitozo n'amahurizo biri ku rupapuro rwa 17 na 19 mu gitabo cy'umunyeshuri byo gukuramo imibare itarenze 2 000.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gukuramo imibare itarenze 2000

Ikuramo ridatira ry'imibare itarenze 2000

Igikorwa cya 2 kiri ku rupapuro rwa 17 mu gitabo cy'umunyeshuri

- a) 535 b) 223 c) 432 d) 322 e) 550

Nsuzuma ngusuzume iri ku rupapuro rwa 16 mu gitabo cy'umunyeshuri

- $1\,698 - 1\,426 = 282$ • $1\,385 - 1\,274 = 111$ • $1\,958 - 1\,327 = 631$
- $1\,875 - 1\,352 = 523$ • $1\,296 - 276 = 1\,020$
- $1\,579 - 1\,156 = 423$ • $1\,473 - 1\,062 = 412$

Reka nisuzume iri ku rupapuro rwa 17 mu gitabo cy'umunyeshuri

- a) 1 232 c) 900 e) 552
b) 226 d) 1 020 f) 1 033

Imyitozo iri ku rupapuro rwa 17 mu gitabo cy'umunyeshuri

- a) 1 122 c) 902 e) 1 116
b) 531 d) 352

Ikuramo ritira ry'imibare itarenze 2000

Igikorwa kiri ku rupapuro rwa 18 mu gitabo cy'umunyeshuri

- a) 264 b) 234 c) 576 d) 825 e) 262

Nsuzuma ngusuzume iri ku rupapuro rwa 18 mu gitabo cy'umunyeshuri

- $1\,124 - 1\,099 = 25$ • $1\,234 - 978 = 256$ • $1\,421 - 786 = 635$
- $1\,005 - 987 = 18$ • $1\,326 - 879 = 447$ • $2\,000 - 1\,979 = 21$
- $1\,300 - 1\,299 = 1$

Reka nisuzume iri ku rupapuro rwa 19 mu gitabo cy'umunyeshuri

- a) 235 c) 38 e) 157
b) 144 d) 348 f) 553

Imyitozo iri ku rupapuro rwa 19 mu gitabo cy'umunyeshuri

- a) 168 b) 480 c) 800 d) 40 e) 255

Amahurizo yo gukuramo imibare itarenze 2 000

Nsuzuma ngusuzume iri ku rupapuro rwa 20 mu gitabo cy'umunyeshuri

- 1) Umubare w'ibiti yasigaranye: $1\,917 - 769 = 1\,148$
- 2) Umubare w'inka yasigaranye: $1\,231 - 523 = 708$
- 3) Umubare w'abagabo n'urubyiruko batuye mu murenge wacu: $1\,163 - 999 = 164$
- 4) Umubare w'inka zororerwa mu biraro: $1\,721 - 179 = 1\,542$

Reka nisuzume iri ku rupapuro rwa 21 mu gitabo cy'umunyeshuri

- 1) Umubare w'ibiti bibura ngo twese umuhigo: $2\ 000 - 1\ 099 = 901$
- 2) Umubare w'abarwayi basigaye: $1\ 532 - 799 = 733$
- 3) Shaka umubare w'inzu zisakajwe amabati ziri mu murenge: $1\ 911 - 975 = 936$
- 4) Shaka umubare w'abanyeshuri biga muri iryo shuri: $1\ 921 - 124 = 1797$

Imyitozo iri ku rupapuro rwa 21 mu gitabo cy'umunyeshuri

- 1) a) $1\ 234 + 396 = 1\ 630$ d) $1\ 623 + 245 = 1\ 868$
 b) $1\ 234 + 695 = 1\ 929$ e) $1\ 623 + 309 = 1\ 932$
 c) $1\ 234 + 319 = 1\ 553$ f) $1\ 623 + 299 = 1\ 922$
- 2) a) $1\ 234 - 396 = 838$ d) $1\ 623 - 245 = 1\ 378$
 b) $1\ 234 - 695 = 539$ e) $1\ 623 - 309 = 1\ 314$
 c) $1\ 234 - 319 = 915$ f) $1\ 623 - 299 = 1\ 324$
- 3) Abantu bemerewe gutora muri utwotugari twombi: $996 + 999 = 1\ 995$.
- 4) Umubare w'abantu bakuru batu ye mu kagari kalu: $1\ 964 - 1\ 324 = 640$

1.9.7 Ikigwa cya karindwi : Gukuba imibare igikubo kitarenze 2 000 (Amasomo 4)**a. Intego*****Ubumenyi***

Gusobanukirwa uko bakuba umubare w'imibarwa itatu n'undi mubare w'imibarwa 2 igikubo ntikirenge 2000.

Ubumenyingiro

Gukuba umubare w'imibarwa itatu n'undi w'imibarwa 2 igikubo ntikirenge 2 000 no kubikoresha mu buzima busanzwe.

Ubukeshya

Gutekereza neza kandi vuba. Kwigirira ikizere no gukora cyane.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gukuba imibare y'imibarwa 2 n'umubare w'imibarwa 1 igikubo cyayo kitarenga 1 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo abaha imfashanyigisho n'imyitozo byihariye.

c. Imfashanyigisho

- Imbonerahamwe y'ibara.
- Amakarita y'imibare ari mu mabara atandukanye.
- Ibibarisho n'utubarisho dutandukanye .

d. Ibikorwa by'imyigire n'imyigishirize

- Kuyobora abanyeshuri mu gikorwa cyo gukuba imibare buhagazi maze ukabafasha gusobanukirwa aho bahera bakuba n'uko bakomeza .
- Gusaba abanyeshuri guca imbonerahamwe y'ibara bakandikamo imibare bahawe bakayikuba bahereye iburyo baja ibumoso.
- Guha abanyeshuri amakarita y'imibare iri hagati ya 1 000 na 2 000 n'amakarita ariho ibimenyetso byo gukuba bakajya bakuba imibare yanditseho maze bagahitamo ikarita iriho igikubo cyayo.
- Ku mahurizo yo gukuba banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko:

- Bakuba umubare w'imibarwa 3 n'undi w'imibarwa 2 n'amategako bakurikiza.
- Bakora amahurizo arimo gukubisha umubare w'imibarwa itatu n'undi w'imibarwa 2.

f. Isuzuma

Guha abanyeshuri imyitozo n'amahurizo biri ku rupapuro rwa 28, 30 na 32 mu gitabo cy'umunyeshuri yo gukuba umubare w'imibarwa 3 n'undi w'imibarwa 2.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Mara ya 7 n'ibikubo bya 7 bitarenze 70

Igikorwa kiri ku rupapuro rwa 22 mu gitabo cy'umunyeshuri

a, b na c: Ibisubizo biratandukanye bitewe n'uko buri munyeshuri azasubiza akurikije uko abyumva.

Imyitozo iri ku rupapuro rwa 23 mu gitabo cy'umunyeshuri

- | | | | |
|------------------------|----------------------|----------------------|-----------------------|
| 1) a) $7 = 7 \times 1$ | d) $28 = 7 \times 4$ | g) $49 = 7 \times 7$ | j) $70 = 7 \times 10$ |
| b) $14 = 7 \times 2$ | e) $35 = 7 \times 5$ | h) $56 = 7 \times 8$ | |
| c) $21 = 7 \times 3$ | f) $42 = 7 \times 6$ | i) $63 = 7 \times 9$ | |
| 2) a) 7 inshuro 1 | $7 \times 1 = 7$ | 7 inshuro 2 | $7 \times 2 = 14$ |
| b) 7 inshuro 3 | $7 \times 3 = 21$ | 7 inshuro 4 | $7 \times 4 = 28$ |
| c) 7 inshuro 5 | $7 \times 5 = 35$ | 7 inshuro 6 | $7 \times 6 = 42$ |
| d) 7 inshuro 7 | $7 \times 7 = 49$ | 7 inshuro 8 | $7 \times 8 = 56$ |
| e) 7 inshuro 9 | $7 \times 9 = 63$ | 7 inshuro 10 | $7 \times 10 = 70$ |

3)

a)

$\sqrt{\quad}$	0	1	2	3	4	5	6	7	8	9	10
$\times 7$	0	7	14	21	28	35	42	49	56	63	70

b)

$\sqrt{\quad}$	0	1	2	3	4	5	6	7	8	9	10
$\times 7$	0	7	14	21	28	35	42	49	56	63	70

c. 7, 14, 21, 28, 35, 42, 49, 56, 63, 70.

Mara ya 8 n'ibikubo bya 8 bitarenze 80**Igikorwa kiri ku rupapuro rwa 24 mu gitabo cy'umunyeshuri**

- a, b na c: Ibisubizo biratandukanye bitewe n'uko buri munyeshuri azasubiza akurikije uko abyumva
- d: 8, 16, 24, 32, 40, 48, 56, 64, 72 na 80

Imyitozo iri ku rupapuro rwa 26 mu gitabo cy'umunyeshuri

- 1) a) $8 = 8 \times 1$ e) $40 = 8 \times 5$ i) $72 = 8 \times 9$
b) $16 = 8 \times 2$ f) $48 = 8 \times 6$ j) $80 = 8 \times 10$
c) $24 = 8 \times 3$ g) $56 = 8 \times 7$
d) $32 = 8 \times 4$ h) $64 = 8 \times 8$
2. a) 8 inshuro 1 $8 \times 1 = 8$ 8 inshuro 6 $8 \times 6 = 48$
b) 8 inshuro 2 $8 \times 2 = 16$ 8 inshuro 7 $8 \times 7 = 56$
c) 8 inshuro 3 $8 \times 3 = 24$ 8 inshuro 8 $8 \times 8 = 64$
d) 8 inshuro 4 $8 \times 4 = 32$ 8 inshuro 9 $8 \times 9 = 72$
e) 8 inshuro 5 $8 \times 5 = 40$ 8 inshuro 10 $8 \times 10 = 80$

3.

a)	$\sqrt{\quad}$	0	1	2	3	4	5	6	7	8	9	10
	$\times 8$	0	8	16	24	32	40	48	56	64	72	80

b)	$\sqrt{\quad}$	0	1	2	3	4	5	6	7	8	9	10
	$\times 8$	0	8	16	24	32	40	48	56	64	70	80

c) 8, 16, 24, 32, 40, 48, 56, 64, 72, 80

Mara ya 9 n'ibikubo bya 9 bitareze 90**Igikorwa kiri ku rupapuro rwa 27 mu gitabo cy'umunyeshuri**

- a) b) na c) Ibisubizo biratandukanye biewe n'uko buri munyeshuri azasubiza akurikije uko abyumva.
- d) 9, 18, 27, 36, 45, 56, 64, 72, 81 na 90

Imyitozo iri ku rupapuro rwa 28 mu gitabo cy'umunyeshuri

- 1) a) $9 = 9 \times 1$ d) $36 = 9 \times 4$ g) $63 = 9 \times 7$ j) $90 = 9 \times 10$

- b) $18 = 9 \times 2$ e) $45 = 9 \times 5$ h) $72 = 9 \times 8$
 c) $27 = 9 \times 3$ f) $54 = 9 \times 6$ i) $72 = 8 \times 9$
- 2) 9 inshuro 1 $9 \times 1 = 9$ 9 inshuro 6 $9 \times 6 = 54$
 9 inshuro 2 $9 \times 2 = 18$ 9 inshuro 7 $9 \times 7 = 63$
 9 inshuro 3 $9 \times 3 = 27$ 9 inshuro 8 $9 \times 8 = 72$
 9 inshuro 4 $9 \times 4 = 36$ 9 inshuro 9 $9 \times 9 = 81$
 9 inshuro 5 $9 \times 5 = 45$ 9 inshuro 10 $9 \times 10 = 90$

3) a)

√	0	1	2	3	4	5	6	7	8	9	10
$\times 9$	0	9	18	27	36	45	54	63	72	81	90

b)

√	0	1	2	3	4	5	6	7	8	9	10
$\times 9$	0	9	18	27	36	45	54	63	72	81	90

c) 9, 18, 27, 35, 45, 54, 63, 72, 81, 90

Gukuba imibare y'imibarwa ibiri cyangwa itatu na 7, 8, 9 igikubo cyayo kitarenze 2000

Igikorwa kiri ku rupapuro rwa 29 mu gitabo cy'umunyeshuri

- a) 1 225 b) 1 512 c) 1 773 d) 1 302 e) 1 336

Nsuzuma ngusuzume iri ku rupapuro rwa 30 mu gitabo cy'umunyeshuri

- a) 1 715 b) 1 720 c) 1 800 d) 1 673 e) 1 512

Reka nisuzume iri ku rupapuro rwa 30 mu gitabo cy'umunyeshuri

- a) $(200 \times 7) + (50 \times 7) + (4 \times 7) = 1778$
 b) $(200 \times 8) + (40 \times 8) + (5 \times 8) = 1960$
 c) $(200 \times 9) + (10 \times 9) + (9 \times 9) = 1971$
 d) $(100 \times 7) + (90 \times 7) + (8 \times 7) = 1386$
 e) $(100 \times 8) + (70 \times 8) + (9 \times 8) = 1432$
 f) $(200 \times 9) + (0 \times 9) + (9 \times 9) = 1881$

Imyitozo iri ku rupapuro rwa 30 mu gitabo cy'umunyeshuri

- a) 1 370 b) 1 836 c) 1 408 d) 1 791 e) 774

Ikuba ry'umubare w'imibarwa 3 n'undi w'imibarwa 2 igikubo cyayo kitarenze 2000

Igikorwa kiri ku rupapuro rwa 31 mu gitabo cy'umunyeshuri

- a) 1 887 b) 1 995 c) 1 872 d) 1 969 e) 1 935

Reka nisuzume iri ku rupapuro rwa 31 mu gitabo cy'umunyeshuri

- a) 1 898 b) 1 944 c) 1 946 d) 1 976 e) 1 860

Nsuzuma ngusuzume iri ku rupapuro rwa 31 mu gitabo cy'umunyeshuri

- $114 \times 14 = 1\,596$
- $103 \times 11 = 113$
- $112 \times 17 = 1\,904$
- $115 \times 13 = 1\,495$
- $102 \times 15 = 1\,530$
- $109 \times 12 = 1\,308$
- $117 \times 16 = 1\,872$

Imyitozo iri ku rupapuro rwa 32 mu gitabo cy'umunyeshuri

- a) $116 \times 16 = 1\,856$ c) $116 \times 17 = 1\,972$ e) $116 \times 13 = 1\,508$
 b) $116 \times 15 = 1\,740$ d) $116 \times 14 = 1\,624$ f) $116 \times 12 = 1\,392$

Amahurizo yo gukuba umubare w'imibarwa 3 n'undi w'imibarwa 2 igikubo kitarenze 2 000**Nsuzuma ngusuzume iri ku rupapuro rwa 33 mu gitabo cy'umunyeshuri**

- 1) Umubare w'ibitoki yatemye: $117 \times 17 = 1\,989$
- 2) Umubare w'abarwayi bari muri ibyo bitaro: $105 \times 19 = 1\,995$
- 3) Umubare w'amajwi ajya mu dusanduku k'itora: $148 \times 13 = 1\,924$
- 4) Umubare w'amatafari abumbwa mu minsi 12: $165 \times 12 = 1\,980$

Reka nisuzume iri ku rupapuro rwa 33 mu gitabo cy'umunyeshuri

- 1) Umubare w'ibiti byatewe $\longrightarrow 162 \times 12 = 1\,944$
- 2) Umubare w'amakayi Butera yaguze $\longrightarrow 135 \times 14 = 1\,890$
- 3) Umubare w'isabune acuruza mu minsi 16 $\longrightarrow 124 \times 16 = 1\,984$
- 4) Umubare w'intebe ziri muri icyo kigo $\longrightarrow 18 \times 15 = 270$

Ikuba ry'imibare na 100 na 1000 igikubo cyayo kitarenze 2000**Igikorwa kiri ku rupapuro rwa 34 mu gitabo cy'umunyeshuri**

- a) 1 200 c) 1 000 e) 1 900
 b) 1 700 d) 1 960 f) 2 000

Imyitozo iri ku rupapuro rwa 35 mu gitabo cy'umunyeshuri

- a) 100 d) 10 g) 1 000 j) 100
 b) 100 e) 1 000 h) 1 000
 c) 100 f) 10 i) 10

Reka nisuzume iri ku rupapuro rwa 35 mu gitabo cy'umunyeshuri

- a) 700 100 15
 b) 800 1 000 2
 c) 2 000 100 10
 d) 1000 100 8
 d) 1500 100 7
-

1.9.8 Ikigwa cya munani: Kugabanya imibare itarenze 2 000 (Amasomo3)

a. Intego

Ubumenyi

Gusobanukirwa uko bagabanya umubare w'imibarwa ine n'umubare w'umubarwa 1 imibare itarenze 2 000.

Ubumenyingiro

Kugabanya umubare w'imibarwa ine n'umubare w'umubarwa 1 imibare itarenze 2000.

Ubukeshya

Gutekereza neza kandi vuba. Kwigirira ikizere no gukora cyane.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo kugabanya imibare itarenze 1 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo abaha imfashanyigisho n'imyitozo byihariye.

c. Imfashanyigisho

- Imbonerahamwe y'ibara.
- Amakarita y'imibare ari mu mabara atandukanye.
- Ibibarisho n'utubarisho dutandukanye.

d. Ibikorwa by'imyigire n'imyigishirize

- Kuyobora abanyeshuri mu gikorwa cyo kugabanya imibare mu mahembe, kubafasha gusobanukirwa aho imibare baheraho iherereye, impamvu ushobora gufata imibare ibiri igihe ugabanya, ...
- Ha abanyeshuri amakarita y'imibare iri hagati ya 1 000 na 2 000 n'amakarita ariho ibimenyetso byo kugabanya bakajya bagabanya imibare yanditseho maze bagahitamo ikarita iriho ikigabanyo cyayo.
- Ku mahurizo yo kugabanya, banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe. Ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanywa ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko:

- Bagabanya imibare itarenze 2 000 n'amategeko bakurikiza.
- Bakora amahurizo arimo kugabanya umubare w'imibarwa ine n'undi w'umubarwa 1.

f. Isuzuma

Guha abanyeshuri imyitozo n'amahurizo biri mu gitabo cy'umunyeshuri yo kugabanya imibare itarenze 2 000.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Igabanya ridasagura ry'umubare w'imibare 4 n'imibare w'umubare 1

Igikorwa cya 1 kiri ku rupapuro rwa 35 mu gitabo cy'umunyeshuri

$\sqrt{\quad}$	2	4	6	8	10	12	14	16	18	20
:2	1	2	3	4	5	6	7	8	9	10
$\sqrt{\quad}$	3	6	9	12	15	18	21	24	27	30
:3	1	2	3	4	5	6	7	8	9	10
$\sqrt{\quad}$	4	8	12	16	20	24	28	32	36	40
:4	1	2	3	4	5	6	7	8	9	10
$\sqrt{\quad}$	5	10	15	20	25	30	35	40	45	50
:5	1	2	3	4	5	6	7	8	9	10
$\sqrt{\quad}$	6	12	18	24	30	35	42	48	54	60
:6	1	2	3	4	5	6	7	8	9	10
$\sqrt{\quad}$	7	14	21	28	35	42	49	56	63	70
:7	1	2	3	4	5	6	7	8	9	10
$\sqrt{\quad}$	8	16	24	32	40	48	56	64	72	80
:8	1	2	3	4	5	6	7	8	9	10
$\sqrt{\quad}$	9	18	27	36	45	54	63	72	81	90
:9	1	2	3	4	5	6	7	8	9	10

Igikorwa cya 3 kiri ku rupapuro rwa 36 mu gitabo cy'umunyeshuri

- a) 309 b) 315 c) 206 d) 221 e) 884 f) 221

Nsuzuma ngusuzume iri ku rupapuro rwa 36 mu gitabo cy'umunyeshuri

- 1 443 : 3 = 481 • 1 875 : 5 = 375 • 1 648 : 8 = 206
- 1 796 : 4 = 449 • 1 542 : 6 = 257 • 1 899 : 9 = 211
- 1 687 : 7 = 241

Imyitozo iri ku rupapuro rwa 37 mu gitabo cy'umunyeshuri

- 1) a) 1 064 : 8 = 133 c) 2 000 : 5 = 400 f) 1 872 : 8 = 234
b) 1 998 : 9 = 222 d) 1 872 : 6 = 312 e) 1 267 : 7 = 181

Amahurizo yo kugabanya

Nsuzuma ngusuzume iri ku rupapuro rwa 38 mu gitabo cy'umunyeshuri

- 1) Umubare w'abanyeshuri bagiye muri buri shuri $\rightarrow 378 : 9 = 42$
2) Umubare w'ibitabo bizahabwa buri shuri $\rightarrow 894 : 6 = 149$
3) Umubare w'inzitiramibu zizahabwa buri kagari $\rightarrow 1\,985 : 5 = 397$
4) Umubare w'imifuka buri fuso yatwaye $\rightarrow 1\,359 : 9 = 151$

Reka nisuzume iri ku rupapuro rwa 38 mu gitabo cy'umunyeshuri

- 1) Umubare w'amagi azajya muri buri karito $\longrightarrow$ $1\ 768: 8 = 221$
- 2) Umubare w'imipira izahabwa buri Karere $\longrightarrow$ $1\ 484: 7 = 212$
- 3) Umubare w'imyitozo ikorwa buri munsu $\longrightarrow$ $1\ 888: 8 = 236$
- 4) Umubare w'ibitabo bizahabwa buri kigo $\longrightarrow$ $1\ 845: 5 = 369$

1.10 Gusozwa umutwe

a. Inshamake y'ibikubiye muri uyu mutwe

- Kubara, gusoma, kwandika, gutondeka no kugereranya neza imibare ishyitse kuva kuri 0 kugera ku 2 000, gusesengura no gukoresha neza kandi byihuse amategeko y'ibara (+, -, $\times$, :) mu mibare ishyitse.
- Gutandukanya imibare y'igiharwe n'imibare itari igiharwe.

b. Ubumenyi bw'inyongera umwarimu asabwa kugira

- Kumenya kuyobora ibikorwa byose kandi yita kuri buri munyeshuri nta we asize inyuma.
- Gusobanura ku buryo bwimbitse uko babara, basoma, bandika, batondeka bagereranya, basesengura n'uko bakoresha neza kandi byihuse amategeko y'ibara (+, -, $\times$, :) mu mibare ishyitse kuva kuri 0 kugera kuri 2 000.
- Gutegura no gukoresha neza imfashanyigisho zinyuranye.
- Kumenya uko yacengeza ingingo nsanganyamasomo igihe yigisha Imibare.
- Kumenya neza imyigishirize y'Imibare ijyanye n'integanyanyigisho ishingiye ku bushobozi.

c. Ibisubizo by'isuzuma risoza umutwe wa 1 riri mu gitabo cy'umunyeshuri ku rupapuro rwa 39

- 1) a) Igihumbi magana kenda mirongo inani na karindwi b) 1 378
- 2) 1 789
- 3) a) 1 798 b) 1 739
- 4) a) Ikinyagihumbi b) Ikinyacumi c) Ikinyajana d) Ikinyabumwe
- 5) a) $1\ 095 > 1\ 059$ b) $1\ 741 < 1\ 876$
- 6) 1 789, 1 798, 1 879, 1 897, 1 978, 1 987
- 7) 1 970, 1 907, 1 790, 1 709, 1 097, 1 079
- 8) a) 1 997 b) 1 904
- 9) a) 1 023 b) 362
- 10) a) 1 248 b) 1 435 c) 1 881 e) 1 911 d) 1 860
- 11) a) 222 b) 121 c) 209
- 12) Umubare w'abaturage batuye muri ako kagari: $367 + 445 + 461 + 723 = 1\ 996$
- 13) Umubare w'abahungu biga muri iryo shuri: $1\ 874 - 987 = 887$

14) Umubare w'abantu bari guhugurirwa muri icyo cyumba: $275 \times 7 = 1\,925$

15) Umubare w'inzitiramubu zizahabwa buri mudugudu: $1\,998 : 6 = 333$

d. Imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire.

Ibibazo

1) Andika mu mibare cyangwa mu magambo

a) Igihumbi na magana atanu: b) 1 820:

2) Shaka umubare wasesenguwe

a) $1\,000 + 200 + 50 =$ b) $(1\,000 \times 1) + (100 \times 3) + (10 \times 2) + (1 \times 2) =$

3) Gereranya ukoresheje $<$, $>$ cyangwa $=$

a) $450 \dots 1\,000$ b) $850 \dots 850$ c) $1\,240 \dots 1\,500$

4) Tondeka uhereye ku mubare muto ujya ku mubare munini

1 100, 700, 1 000, 1 300 $\longrightarrow$

5) Tondeka uhereye ku mubare munini ujya ku mubare muto

1 200, 900, 1 500, 1 400 $\longrightarrow$

6) Kora

a) $724 + 273 =$ c) $234 \times 2 =$ b) $1\,453 - 212 =$ d) $1\,863 : 3 =$

7) Kora aya mahurizo

a) Mu ishuri ryacu twiga turi abanyeshuri 45. Haramutse haje abandi bashyashya 12 ubwo twajya twiga turi abanyeshuri bangahe?

b) MUHIRE yasaruye amashu 378. Niba 178 muri yo yarayagurishije ubwo yasigaranye amashu angahe?

c) Mu kigo cyacu hari ibyumba by'amashuri 11. Niba buri cyumba kirimo abanyeshuri 32 ubwo muri ibyo byumba byose harimo abanyeshuri bangahe?

d) Gabanya ku buryo bungana imyembe 484 abacuruzi 4. Buri mucuruzi uzamuha imyembe ingahe?

Ibisubizo

1) a) 1 500 b) Igihumbi magana inani na makumyabiri

2) a) 1 250 b) 1 322

3) a) $450 < 1\,000$ b) $850 = 850$ c) $1\,240 < 1\,500$

4) 700, 1 000, 1 100, 1 300

5) 1 500, 1 400, 1 200, 900

6) a) 997 b) 1 665 c) 468 d) 621

7) a) Tugiye kujya twiga turi abanyeshuri: $45 + 12 = 57$

b) Yasigaranye amashu: $378 - 178 = 200$

c) Muri ibyo byumba byose harimo abanyeshuri: $11 \times 32 = 352$

d) Buri mucuruzi uzamuha imyembe: $484 : 4 = 121$

f. Imyitozo y'umwihariko ihabwa abanyeshuri bihuta cyane mu myigire kurusha abandi.

Ibibazo

- 1) Andika mu mibare cyangwa mu magambo
 - a) 1 979 :
 - b) Igihumbi magana atandatu mirongo kenda na karindwi:
- 2) Shaka umubare wasesenguwe
 - a) $j\ 8\ c\ 7\ h\ 1\ b\ 9 =$
 - b) $c\ 4\ j\ 3\ b\ 9\ h\ 1 =$
 - c) $b\ 9\ h\ 1\ c\ 6\ j\ 5 =$
- 3) Koresha $<, >$ cyangwa = ugereranye iyi mibare
 - a) $j\ 7\ c\ 7\ h\ 1\ b\ 5 \dots b\ 6\ h\ 1\ c\ 4\ j\ 9$
 - c) $c\ b\ 3\ h\ 1\ c\ 9\ j\ 3 \dots c\ 5\ j\ 9\ b\ 3\ h\ 1$
 - b) $c\ 9\ j\ 7\ b\ 8\ h\ 1 \dots j\ 7\ c\ 2\ h\ 1\ b\ 6$
 - d) $j\ 5\ c\ 6\ h\ 1\ b\ 2 \dots b\ 8\ h\ 1\ c\ 4\ j\ 9$
- 4) Tondeka uhareye ku mubare muto ujya ku mubare munini
1798, 1879, 1978, 1789, 1897, 1987 $\longrightarrow$
- 5) Tondeka uhareye ku mubare munini ujya ku mubare muto
1564, 1654, 1456, 1546, 1645, 1465 $\longrightarrow$
- 6) Kora iyi myitozo
 - a) $978 + 896 =$
 - b) $1\ 901 - 987 =$
 - c) $274 \times 7 =$
 - d) $1\ 795 : 5 =$
- 7) Kora aya mahurizo
 - a) Mu mudugudu wacu harimo abana 798, abagabo 157, urubyiruko 598 n'abagore 239. Shaka umubare w'abaturage batuye mu mudugudu wacu.
 - b) INEZA yaranguye amagi 2 000, acuruzaho 1 298 agiye kureba ayasigaye asanga haramenutse amagi 379. Ubwo asigaranye amagi angahe mazima?
 - c) Mu kigo ngororamuco harimo ibyumba 75 bigororerwamo abagororwa. Niba buri cyumba habamo abagororwa 26 ubwo muri icyo kigo harimo abagororwa bangahe?
 - d) Gabanya ku buryo bungana amabati 1 872 imidugudu 9. Buri mudugudu uzawuha amabati angahe?

Ibisubizo

- 1) a) Igihumbi magana kenda mirongo irindwi n'ikenda. b) 1 697
- 2) a) 1 879 b) 1 349 c) 1 569
- 3) a) $1\ 775 > 1\ 946$ c) $1\ 393 < 1\ 953$
b) $1\ 798 > 1726$ d) $1\ 562 > 1\ 948$
- 4) 1 789, 1 798, 1 879, 1 897, 1 978, 1 987
- 5) 1 654, 1 645, 1 564, 1 546, 1 465, 1 456
- 6) a) 1 874 b) 914 c) 1 918 d) 395
- 7) a) Umubare w'abaturage batuye mu Mudugudu wacu:
 $798 + 157 + 598 + 239 = 1\ 792$
b) Yasigaranye amagi: $2\ 000 - (1\ 298 + 379) = 323$
c) Habamo abagororwa: $75 \times 26 = 1\ 950$
d) Buri mudugudu uzahabwa amabati: $1\ 872 : 9 = 208$

Umutwe wa 2: Imibare kuva kuri 0 kugera ku 5 000

2.1 Ubushobozi bw'ingenzi bugamijwe

Kubara, gusoma, kwandika, gutondeka, kugereranya, guteranya, gukuramo, gukuba no kugabanya imibare ishyyitse kuva kuri 0 kugera ku 5 000

2.2 Ibyizwe mbere bifatanye isano n'uyu mutwe

Kubara, gusoma, kwandika, gutondeka, kugereranya, guteranya, gukuramo, gukuba no kugabanya imibare ishyyitse kuva kuri 0 kugera ku 2 000

2.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho

- *Ubwuzuzanye bw'ibitsina byombi* bugaragara igihe abanyeshuri bakora imyitozo nta vangura.
- *Uburezi budaheza* bugaragara mu guha abanyeshuri bose amahirwe angana yo kwiga.
- *Gufata neza ibidukikije* bugaragara igihe abanyeshuri bose basukura aho bakorera cyangwa bafata neza imfashanyigisho bakoresheje.
- *Umuco wo gukoresha neza umutungo* ugaragara mu myitozo isaba abanyeshuri gucunga neza imfashanyigisho no gukora gahunda y'ibikorwa birinda gusesagura.
- *Umuco w'amahoro* ugaragara mu bikorwa byo mu matsinda aho umunyeshuri akorana na bagenzi be mu bwumvikane nta we abangamiye.

2.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe

- *Gushyikirana n'abandi* igihe akorera mu matsinda cyangwa afatanye n'abandi.
- *Gukoresha imvugo isobanutse* igihe asoma imibare.
- *Guhanga udushya* akora udukarita twanditseho imibare.
- *Kwikemurira ibibazo* mu gihe akoresha imibare neza mu buzima busanzwe.
- *Kugira amashyushyu*, yo guhora yiyungura ubumenyi mu mibare.

2.5 Amagambo umunyeshuri yunguka muri uyu mutwe

Umubare: uba ugizwe n'imibarwa umwe cyangwa myinshi.

Umubarwa: ni umwe mu mibare kuva kuri 0 kugera ku 9 igihe ubarwa nk'igice cy'undi mubare.

Gutira: gufata umubare ukurikira umwanya ukurwamo iyo usanze umubare ukurwamo ari muto ku wo ukuramo.

Kubitsa : kwandika umubare w'ibinyacumi bisaguka ku giteranyo k'imibare y'umwanya runaka ugateranywa ku mwanya ukurikiyeho

Kugabanya udasumbanya impare: kugabanya ku buryo bungana

Umubare w'igiharwe: ni umubare utagabanyika na 2

Umubare utari igiharwe: ni umubare ugabanyika 2

2.6 Uburyo bwo gusesengura ikibazo nyamukuru

- Umwarimu asomesha agakuru kajyanye n'umwozi w'inko utamenya kubara amagi yagurishije n'ayo yasigaranye bigatuma adatera imbere.
- Asaba abanyeshuri kukaganiraho no kugatangaho ibitekerezo bagaragaza ubumenyi akeneye mu mibare kugira ngo atere imbere.
- Abasobanurira ko ibisubizo nyabyo bazajya babibona mu masomo bagiye kwiga muri uyu mutwe.

2.7 Uko umwarimu yita by'umwihariko ku bafite ibibazo byihariye yigisha uyu mutwe

- Abafata bitinze bategurire imyitoto usanga muri iki gitabo cy'umwarimu; yoroshye ugereranyije n'iy'abandi.
- Abafite ubumuga bw'ingingo banza umenye izo ari zo ubategurire imfashanyigisho zihariye n'imyitoto wagenera buri wese .
- Abafite impano yo kumva no gukora vuba cyane bahe imyitoto usanga mu gitabo cy'umwarimu, ituma batarangaza abandi .

2.8 Ibyigwa biri muri uyu mutwe wa kabiri

Ibyigwa		Umubare w'amasomo: 22
1	Gusoma no kwandika imibare kuva kuri 0 kugera ku 5 000	2
2	Gusesengura imibare kuva kuri 0 kugera ku 5 000	1
3	Gutondeka imibare kuva kuri 0 kugera ku 5 000	1
4	Kugereranya imibare kuva kuri 0 kugera ku 5 000	1
5	Guteranya imibare igiteranyo kitarenga 5 000	4
6	Gukuramo imibare itarenze 5 000	4
7	Gukuba imibare igikubo kitarenze 5 000	4
8	Kugabanya imibare itarenze 5 000	3
9	Isuzuma risoza umutwe	2

2.9 Imyigishirize ya buri kigwa

2.9.1 Ikigwa cya mbere: Gusoma no kwandika imibare kuva kuri 0 kugera ku 5 000 (Amasomo 2)

a. Intego

Ubumenyi

Kuvuga imvugo yumvikana igihe asoma imibare kuva kuri 0 kugera 5 000 mu mibare no mu magambo.

Ubumenyigiro

Gusoma no kwandika neza imibare itarenze 5 000 aho ari hose.

Ubukeshya

Kugaragaza gahunda mu bikorwa bye bya buri munsu.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gusoma no kwandika imibare itarengeje 2 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara, ibibarisho
- Amakarita y'imibare ari mu mabara atandukanye n'utubarisho dutandukanye

d. Ibikorwa by'imyigire n'imyigishirize

Imyigire n'imyigishirize yo gusoma no kwandika imibare ihuye n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere

e. Ikomatanyarizwe

Kuyobora abanyeshuri mu kuvuga muri make uko baca imbonerahamwe y'ibara, uko bandika n'uko basoma imibare n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 42 mu gitabo cy'umunyeshuri yo kwandika imibare mu mbonerahamwe y'ibara, kuyisoma baranguruye ijwi no kuyandika mu mibare no mu magambo.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'uyu mutwe

Gusoma imibare kuva kuri 0 kugera ku 5 000

Igikorwa cya 2 ku rupapuro rwa 40 mu gitabo cy'umunyeshuri

- a) 1 000; 1 500; 2 000; 2 500; 3 000; 3 500; 4 000; 4 500, 5 000
- b) 1 000; 1 500; 2 000; 2 500; 3 000; 3 500; 4 000; 4 500, 5 000
- c) 500

Reka nisuzume iri ku rupapuro rwa 41 mu gitabo cy’umunyeshuri

Ibisubizo biratandukanye.

Urugero :

- a) 2345 ; 2 418 ; 2 165 d) 3580; 3 899; 3 765
- b) 2 567; 2 689; 2 967 e) 4 376 ; 4 450, 4 499
- c) 3 125 ; 3 459 ; 3 399 f) 4 789, 4 632 ; 4 895

Ibisubizo by’imyitozo iri ku rupapuro rwa 41 mu gitabo cy’umunyeshuri

- 1 251: Ibihumbi magana abiri mirongo itanu na rimwe
- 2 437: Ibihumbi bibiri magana ane na mirongo itatu na karindwi
- 3 317: Ibihumbi bitatu magana atatu na cumi na karindwi

Kwandika imibare kuva kuri 0 kugera ku 5 000

Igikorwa cya 1 kiri ku rupapuro rwa 41 mu gitabo cy’umunyeshuri.

Urugero:

2345: Ibihumbi bibiri magana atatu mirongo ine na gatanu

2354: Ibihumbi bibiri magana atatu mirongo itanu na kane

Igikorwa cya 2 ku rupapuro rwa 41 mu gitabo cy’umunyeshuri

- a) 2100; 2 300 ; 2 500 ; 2 700 ; 2 900
- b) 3 100; 3 300 ;3 500 ; 3 700 ; 3 900
- c) 4 100; 4 300 ;4 500 ; 4 700 ; 4 900

Igikorwa cya 3 kiri ku rupapuro rwa 42 mu gitabo cy’umunyeshuri.

2 134; 2 135, 2 145; 2 154; 3 124; 3 125; 3 234; 3 245; 4 135; 4 235

Reka nisuzume iri ku rupapuro rwa 42 mu gitabo cy’umunyeshuri

- 1) – 2 016: Ibihumbi bibiri na cumi na gatandatu.
- 2 017: Ibihumbi bibiri na cumi na karindwi.
- 2 018: Ibihumbi bibiri na cumi n’umunani.
- 2 019: Ibihumbi bibiri na cumi n’ikenda.
- 2) – 2 031: Ibihumbi bibiri na mirongo itatu na rimwe.
- 2 032: Ibihumbi bibiri na mirongo itatu na kabiri.
- 2 033: Ibihumbi bibiri na mirongo itatu na gatatu.
- 2 034: Ibihumbi bibiri na mirongo itatu na kane.
- 3) – 2 071: Ibihumbi bibiri na mirongo irindwi na rimwe.
- 2 072: Ibihumbi bibiri na mirongo irindwi na kabiri.
- 2 073: Ibihumbi bibiri na mirongo irindwi na gatatu.
- 2 074: Ibihumbi bibiri na mirongo irindwi na kane.
- 4) – 3 026: Ibihumbi bitatu na makumyabiri na gatandatu.

- 3 027: Ibihumbi bitatu na makumyabiri na karindwi.
 - 3 028: Ibihumbi bitatu na makumyabiri n’umunani.
 - 3 029: ibihumbi bitatu na makumyabiri n’ikenda .
- 5) – 4 066: Ibihumbi bine na mirongo itandatu na gatandatu.
- 4 067: Ibihumbi bine na mirongo itandatu na karindwi.
 - 4 068: Ibihumbi bine na mirongo itandatu n’umunani.
 - 4 069: Ibihumbi bine na mirongo itandatu n’ikenda.

Ibisubizo by’imyitozo iri ku rupapuro rwa42 mu gitabo cy’umunyeshuri

- 1) a) Ibihumbi bine magana kenda na makumyabiri na kane.
 b) 3 018 c) 4 870
 d) Ibihumbi bibiri magana kenda na mirongo ine n’ikenda.
 e) Ibihumbi bine n’ijana na mirongo itanu na karindwi.
 f) 2 754

2) Urugero

- 1 234: Igihumbi magana abiri na mirongo itatu na kane.
- 2 134: Ibihumbi bibiri n’ijana na mirongo itatu na kane.
- 4 123: Ibihumbi bine n’ijana na makumyabiri na gatatu.
- 3 421: Ibihumbi bitatu magana ane na makumyabiri na rimwe.
- 4 231: Ibihumbi bine magana abiri na irongo itatu na rimwe.
- 2 341: Ibihumbi bibiri magana atatu na mirongo ine na rimwe.

3)

a	Ibihumbi bitatu magana arindwi na mirongo itandatu na kane.	d	4 908	g	Ibihumbi bibiri magana abiri na mirongo irindwi na gatatu.
b	2 705	e	Ibihumbi bine magana kenda na mirongo itatu na gatandatu.	h	3 539
c	Ibihumbi bitatu magana kenda na mirongo itanu na gatatu.	f	2 307	i	Ibihumbi bine magana arindwi na cumi n’ikenda.

2.9.2 Ikigwa cya kabiri: Gusesengura imibare kuva kuri 0 kugera ku 5 000 (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa umwanya wa buri mubarwa ku mubare ugizwe n'imibarwa ine

Ubumenyigiro

Gusesengura imibare itarenze 5 000 mo ibinyabumwe, ibinyacumi, ibinyajana n'ibinyagihumbi.

Ubukasha

Gutekereza neza kandi vuba.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gusesengura imibare itarengeje 2 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara, ibibarisho
- Amakarita y'imibare ari mu mabara atandukanye n'utubarisho dutandukanye

d. Ibikorwa by'imyigire n'imyigishirize

Imyigire n'imyigishirize yo gusesengura imibare ihuye n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere.

e. Ikomatanya ry'ibyzwe

Kuyobora abanyeshuri mu kuvuga muri make uko baca imbonerahamwe y'ibara, uko basesengura imibare n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 45 mu gitabo cy'umunyeshuri yo kwandika imibare mu mbonerahamwe y'ibara no kuyisesengura.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gusesengura imibare kuva kuri 0 kugera ku 5 000

Igikorwa cya 2 ku rupapuro rwa 43 mu gitabo cy'umunyeshuri

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
3	5	4	6
2	9	3	2
4	9	6	9
2	7	9	4
4	9	3	5

Igikorwa cya 2 ku rupapuro rwa 43 mu gitabo cy'umunyeshuri

- a) $2\,564 = h\,2\,j\,5\,c\,6\,b\,4$ c) $4\,975 = j\,9\,b\,5\,h\,4\,c\,7$ e) $3\,917 = c\,1\,j\,9\,h\,3\,b\,7$
 b) $3\,968 = c\,6\,h\,3\,b\,8\,j\,9$ d) $2\,932 = b\,6\,j\,9\,c\,3\,h\,2$ f) $4\,795 = j\,7\,b\,5\,h\,4\,c\,9$

Igikorwa cya 3 ku rupapuro rwa 44 mu gitabo cy'umunyeshuri

- a) $2\,975$ b) $4\,819$ c) $2\,664$
 d) $2\,359$ e) $3\,597$ f) $4\,195$

Reka nisuzume iri ku rupapuro rwa 44 mu gitabo cy'umunyeshuri

- a) $4\,652 = (4 \times 1\,000) + (6 \times 100) + (5 \times 10) + (2 \times 1)$
 b) $2\,879 = (2 \times 1\,000) + (8 \times 100) + (7 \times 10) + (9 \times 1)$
 c) $3\,574 = (3 \times 1\,000) + (5 \times 100) + (7 \times 10) + (4 \times 1)$
 d) $2\,634 = (2 \times 1\,000) + (6 \times 100) + (3 \times 10) + (4 \times 1)$
 e) $4\,971 = (4 \times 1\,000) + (9 \times 100) + (7 \times 10) + (1 \times 1)$
 f) $3\,695 = (3 \times 1\,000) + (6 \times 100) + (9 \times 10) + (5 \times 1)$
 g) $3\,916 = (3 \times 1\,000) + (9 \times 100) + (1 \times 10) + (6 \times 1)$
 h) $2\,397 = (2 \times 1\,000) + (3 \times 100) + (9 \times 10) + (7 \times 1)$
 i) $4\,645 = (4 \times 1\,000) + (6 \times 100) + (4 \times 10) + (5 \times 1)$

Nsuzuma ngusuzume iri ku rupapuro rwa 44 mu gitabo cy'umunyeshuri.

- a) $2\,639$ b) $4\,379$ c) $3\,742$

Ibisubizo by'imyitozo iri ku rupapuro rwa 44 mu gitabo cy'umunyeshuri

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
3	5	6	4
1	7	5	9
2	3	4	2
4	9	2	5
2	9	5	9
3	7	5	9

- 1) a) $b\,4$ c) $c\,4$ e) $c\,1$
 b) $h\,4\,c\,5$ d) $j\,9$ f) $h\,3\,b\,9$
 2) a) $4\,975$ c) $2\,796$ e) $4\,879$
 b) $3\,647$ d) $3\,528$ f) $2\,677$
 3) a) $2\,694$ b) $4\,549$ c) $3\,475$

2.9.3 Ikigwa cya gatatu: Kugereranya imibare kuva kuri 0 kugera ku 5 000 (Isomo 1)

a. Intego

Ubumenyi

Kumenya ibyinshi, ibike n'ibingana bakoresheje imibare itarenze 5000.

Ubumenyigiro

Kugereranya imibare itarenze 5000 bakoresha ibimenyetso by'igereranya $<$, $>$, cyangwa $=$

Ubukeshya

Gutekereza neza kandi vuba.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo kugereranya imibare itarengeje 2 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara, ibibarisho
- Amakarita y'imibare ari mu mabara atandukanye n'utubarisho dutandukanye

d. Imyigire n'imyigishirize

Imyigire n'imyigishirize yo gusesengura imibare ihuye n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uburyo bubiri bakoresha mu kugereranya imibare n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 47 mu gitabo cy'umunyeshuri yo kugereranya imibare.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Kugereranya imibare zitarenze 5 000

Reka nisuzume iri ku rupapuro rwa 46 mu gitabo cy'umunyeshuri

- Umubare w'abagore uruta uw'abagabo ($1\,987 > 1\,823$)
- Umubare w'abagabo urutwa n'uw'urubyiruko ($1\,823 < 3\,298$)

- c) Umubare w'abana uruta uw'abagabo ($4\ 567 > 1\ 823$)
 d) Umubare w'abagabo urutwa n'uw' abana ($1\ 823 < 4\ 567$)

Nsuzuma ngusuzume iri ku rupapuro rwa 48 mu gitabo cy'umunyeshuri.

- 1) Ubumwe 2) Umutuzo 3) Amahoro 4) Amahoro
 5) a) Umubare w'abagabo bo mu mutuzo urutwa n'uw'abagabo bo mu mahoro
 b) Umubare w'abagabo bo mu bumwe urutwa n'uw' abagabo bo mu mubano
 c) Umubare w'abagabo bo mu mahoro uruta uw abagabo bo mu mubano
 d) Umubare w'abagabo bo mu mutuzo uruta uw abagabo bo mu bumwe

Ibisubizo by'imyitozo iri ku rupapuro rwa 47 mu gitabo cy'umunyeshuri

- a) $4\ 958 = 4\ 958$ d) $4\ 2\ 53 > 2\ 352$
 b) $3\ 174 > 2\ 797$ e) $3\ 764 < 4\ 674$
 c) $2\ 962 < 3\ 637$ f) $2\ 315 < 4\ 135$

2.9.4 Ikigwa cya kane: Gutondeka imibare kuva kuri 0 kugera ku 5 000 (Isomo 1)

a. Intego

Ubumenyi

Kumenya ibyinshi n'ibike bakoresheje imibare itarenze 5 000.

Ubumenyigiro

Gutondeka imibare itarenze 5 000 kuva ku muto ujya ku munini no kuva ku munini ujya ku muto.

Ubukeshya

Gutekereza neza kandi vuba.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gutondeka imibare itarengeje 2 000 iri mu gitabo cy'umunyeshuri .
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara, ibibarisho
- Amakarita y'imibare ari mu mabara atandukanye n'utubarisho dutandukanye

d. Imyigire n'imyigishirize

Imyigire n'imyigishirize yo gutondeka imibare irasa n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uburyo bubiri bakoresha batondeka imibare n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 50 mu gitabo cy'umunyeshuri yo gutondeka imibare.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gutondeka imibare kuva kuri 2 000 kugera ku 5 000

Igikorwa cya 1 ku rupapuro rwa 48 mu gitabo cy'umunyeshuri

- | | |
|------------------------|------------------------|
| 1) 2 348, 3 248, 4 832 | 3) 3 438, 4 334, 4 833 |
| 2) 2 743, 3 247, 4 237 | 4) 2 437, 3 472, 4 327 |

Igikorwa cya 2 ku rupapuro rwa 48 mu gitabo cy'umunyeshuri

- | | |
|--------------------------------------|--------------------------------------|
| 1) 2 345, 2 435, 3 245, 3 425, 4 245 | 3) 2 934, 3 429, 3 942, 4 293, 4 329 |
| 2) 2 349, 2 534, 3 542, 4 425, 4 524 | 4) 2 483, 2 493, 3 249, 4 328, 4 939 |

Reka nisuzume iri ku rupapuro rwa 49 mu gitabo cy'umunyeshuri

1 937, 2 456, 3 271, 4 010, 4 101

Gutondeka imibare uva ku mubare munini ujya ku muto

Igikorwa cya 1 ku rupapuro rwa 49 mu gitabo cy'umunyeshuri

- a) 4 321, 4 231, 3 412, 3 214, 2 431, 2312
b) 4533, 4 123, 3 345, 3 124, 2 341, 2 143

Igikorwa cya 2 ku rupapuro rwa 50 mu gitabo cy'umunyeshuri

- | | |
|-------------------------|-------------------------------|
| 1) 4 352, 3 254, 2 543, | 3) 4 932, 4 392, 3 942, 2 439 |
| 2) 4 235, 3 453, 2 435 | 4) 4 293, 3 492, 3 294, 2 394 |

Nsuzuma ngusuzume iri ku rupapuro rwa 50 mu gitabo cy'umunyeshuri.

- | | |
|---------------------------|------------------------|
| 1) a) 2 893, 2 938, 3 892 | b) 2 834, 3 428, 4 328 |
| 2) a) 4 693, 4 369, 3 496 | b) 4 315, 4 153, 3 451 |

Ibisubizo by'imyitozo iri ku rupapuro rwa 50 mu gitabo cy'umunyeshuri

- | | |
|---------------------------|------------------------|
| 1) a) 4 397, 4 739, 4 973 | b) 3 479, 3 749, 4 97 |
| 2) a) 4 362, 3 263, 2 643 | b) 4 763, 4 367, 3 647 |

2.9.5 Ikigwa cya gatanu: Guteranya imibare igiteranyo kitarenga 5 000 (Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa uko bateranya imibare batabitsa cyangwa babitsa igiteranyo ntikirenge 5 000.

Ubumenyingiro

Guteranya batabitsa no guteranya babitsa igiteranyo ntikirenge 5 000 no kubikoresha mu buzima bya buri muni.

Ubukeshya

Kwigirira ikizere no gukora cyane.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo guteranya imibare itarengeje 2 000 iri mu gitabo cy'umunyeshuri
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara, ibibarisho
- Amakarita y'imibare ari mu mabara atandukanye n'utubarisho dutandukanye
- Imfashanyigisho zivuga cyangwa bakorakora ku batabona
- Imvugo y'amarenga ku batumva n'abatavuga

d. Ibikorwa by'imyigire n'imyigishirize

Imyigire n'imyigishirize yo guteranya imibare ihuye n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere

e. Ikomatany ry'ibyizwe

- Kuyobora abanyeshuri mu kuvuga muri make uko:
- Bateranya babitsa cyangwa batabitsa n'amategeko bakurikiza.
- Bakora amahurizo arimo guteranya imibare igiteranyo kitarenga 5 000.

f. Isuzuma

Guha abanyeshuri imyitozo n'amahurizo biri ku rupapuro rwa 52 na 54 mu gitabo cy'umunyeshuri byo guteranya imibare igiteranyo kitarenga 5 000.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Guteranya imibare igiteranyo cyayo kitarenga 5 000

Iteranya ritabitsa ry'imibare igiteranya cyayo kitarenze 5 000

Igikorwa cyo ku rupapuro rwa 51 mu gitabo cy'umunyeshuri

a) 3 454	b) 2 523	c) 3 435	d) 4 017	e) 2 454
<u>+1 421</u>	<u>+2 175</u>	<u>+1 543</u>	<u>+ 972</u>	<u>+ 2 432</u>
4 875	4 698	4 978	4 989	4 886

Reka nisuzume iri ku rupapuro rwa 51 mu gitabo cy'umunyeshuri

- | | |
|--------------------------|--------------------------|
| a) 4 235 + 763 = 4 998 | d) 2 990 + 2 009 = 4 999 |
| b) 2 567 + 1 421 = 3 988 | e) 3 735 + 1 251 = 4 986 |
| c) 3 909 + 1 090 = 4 999 | f) 4 056 + 823 = 4 879 |

Nsuzuma ngusuzume iri ku rupapuro rwa 52 mu gitabo cy'umunyeshuri

a) 2 524	b) 3 521	c) 3 274	d) 4 215
<u>+ 2 471</u>	<u>+1 268</u>	<u>+ 1 625</u>	<u>+ 581</u>
4 995	4 789	4 899	4 796
e) 2 425	f) 5 156	g) 4 123	
<u>+ 2 434</u>	<u>+ 1 632</u>	<u>+ 675</u>	
4 859	4 798	4 798	

Imyitozo iri ku rupapuro rwa 52 mu gitabo cy'umunyeshuri.

- | | |
|--------------------------|--------------------------|
| a) 3 543 + 1 456 = 4 999 | d) 4 675 + 323 = 4 998 |
| b) 2 235 + 2 704 = 4 927 | e) 2 454 + 2 452 = 4 906 |
| c) 3 972 + 1 017 = 4 989 | |

Iteranya ribitsa iGiteranyO kitarenze 5 000

Igikorwa cyo ku rupapuro rwa 52 mu gitabo cy'umunyeshuri

a) 2 897	b) 3 093	c) 1 395	d) 1 024	e) 1 154
<u>+ 1 654</u>	<u>+ 1 379</u>	<u>+ 3 499</u>	<u>+ 3 699</u>	<u>+ 2 799</u>
4 551	4 472	4 894	4 723	3 953

Reka nisuzume iri ku rupapuro rwa 53 mu gitabo cy'umunyeshuri

- | | |
|--------------------------|--------------------------|
| a) 2 943 + 1 979 = 4 922 | c) 1 239 + 3 678 = 4 917 |
| b) 3 967 + 7 97 = 4 764 | d) 2 795 + 2 089 = 4 884 |

Nsuzuma ngusuzume iri ku rupapuro rwa 53 mu gitabo cy'umunyeshuri.

- | | | |
|--------------------------|-------------------------|-------------------------|
| a) 1 924 + 2 789 = 4 713 | d) 1 952 + 2 897 = 4849 | f) 3 721 + 1 089 = 4810 |
|--------------------------|-------------------------|-------------------------|

- b) $2\,905 + 1\,978 = 4\,883$ e) $2\,642 + 2\,198 = 4\,840$ g) $2\,313 + 2\,679 = 4\,992$
 c) $3\,024 + 1\,879 = 4\,903$

Imyitozo iri ku rupapuro rwa 54 mu gitabo cy'umunyeshuri.

- a) $4\,072 + 928 = 5\,000$ c) $3\,472 + 1\,097 = 4\,569$ e) $3\,246 + 1\,475 = 4\,721$
 b) $3\,235 + 757 = 3\,992$ d) $3\,765 + 997 = 4\,762$

Amahurizo yo guteranya imibare igiteranya cyayo kitarenze 5 000

Nsuzuma ngusuzume iri ku rupapuro rwa 54 mu gitabo cy'umunyeshuri

- 1) Buri munsu rukora amabati: $2\,345 + 2\,649 = 4\,994$
- 2) Kamaze gutera ibiti: $1\,897 + 3\,098 = 4\,995$
- 3) Ni abanyeshuri: $3\,785 + 1\,215 = 5\,000$
- 4) Hari abafana: $2\,178 + 2\,789 = 4\,967$

Reka nisuzume iri ku rupapuro rwa 55 mu gitabo cy'umunyeshuri

- 1) Harimo abantu: $2\,679 + 1\,829 + 245 + 79 = 4\,832$
- 2) Harimo abantu: $2\,189 + 1\,689 + 789 = 4\,667$
- 3) Harimo abantu: $3\,978 + 978 = 4\,956$
- 4) Amaze gusarura amashu: $3\,197 + 1\,789 = 4\,986$

2.9.6 Ikigwa cya gatandatu: Gukuramo imibare itarenze 5 000 (Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa uko bakuramo batira cyangwa badatira imibare itarenze 5000.

Ubumenyigiro

Gukuramo batira cyangwa badatira imibare itarenze 5 000 no kubikoresha mu buzima busanzwe.

Ubukeshya

- Gutekerezanya neza kandi vuba
- Kwigirira ikizere no gukora cyane.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gukuramo imibare itarengeje 2 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara, ibibarisho
- Amakarita y'imibare ari mu mabara atandukanye n'utubarisho dutandukanye

d. Ibikorwa by'imyigire n'imyigishirize

Imyigire n'imyigishirize yo gukuramo imibare ihuye n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko:

- Bakuramo imibare batira n'amategeko bakurikiza.
- Bakora amahurizo yo gukuramo imibare itarenze 5 000.

f. Isuzuma

Guha abanyeshuri imyitozo n'amahurizo biri ku rupapuro rwa 57 mu gitabo cy'umunyeshuri byo gukuramo imibare itarenze 5 000.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'uyu mutwe

Gukuramo imibare itarenze 5 000

Ikuramo ridatira ry'imibare itarenze 5 000

Igikorwa cyo ku rupapuro rwa 56 mu gitabo cy'umunyeshuri

a)	$\begin{array}{r} 4\,956 \\ -3\,124 \\ \hline 1\,832 \end{array}$	b)	$\begin{array}{r} 3\,599 \\ -3\,467 \\ \hline 132 \end{array}$	c)	$\begin{array}{r} 2\,975 \\ -1\,453 \\ \hline 1\,522 \end{array}$	d)	$\begin{array}{r} 3\,694 \\ -2\,573 \\ \hline 1\,121 \end{array}$	e)	$\begin{array}{r} 4\,799 \\ -3\,429 \\ \hline 1\,370 \end{array}$
----	---	----	--	----	---	----	---	----	---

Reka nisuzume iri ku rupapuro rwa 56 mu gitabo cy'umunyeshuri

- | | | | |
|----|----------------------------|----|----------------------------|
| a) | $4\,795 - 2\,563 = 2\,232$ | d) | $4\,965 - 3\,941 = 1\,024$ |
| b) | $3\,765 - 2\,431 = 1\,334$ | e) | $2\,765 - 1\,312 = 1\,453$ |
| c) | $2\,897 - 1\,794 = 1\,103$ | f) | $3\,956 - 2\,932 = 1\,024$ |

Nsuzuma ngusuzume iri ku rupapuro rwa 56 mu gitabo cy'umunyeshuri

- | | | | | | |
|----|----------------------------|----|----------------------------|----|----------------------------|
| a) | $4\,967 - 3\,624 = 1\,343$ | d) | $4\,985 - 3\,712 = 1\,273$ | g) | $4\,738 - 2\,617 = 2\,121$ |
| b) | $3\,857 - 2\,523 = 1\,334$ | e) | $3\,758 - 7\,715 = 1\,043$ | f) | $2\,896 - 1\,465 = 1\,431$ |
| c) | $2\,957 - 3\,712 = 1\,042$ | | | | |

Imyitozo iri ku rupapuro rwa 57 mu gitabo cy'umunyeshuri.

- | | | | |
|----|----------------------------|----|----------------------------|
| a) | $2\,543 - 1\,412 = 1\,131$ | d) | $2\,765 - 1\,523 = 1\,242$ |
| b) | $4\,235 - 3\,740 = 495$ | e) | $3\,599 - 3\,429 = 170$ |
| c) | $3\,729 - 2\,517 = 1\,212$ | | |

Ikuramo ritira ry'imibare itarenze 5 000

Igikorwa cyo ku rupapuro rwa 57 mu gitabo cy'umunyeshuri

- | | | | | | | | | | |
|----|----------|----|----------|----|----------|----|----------|----|----------|
| a) | $4\,243$ | b) | $3\,613$ | c) | $2\,345$ | d) | $3\,524$ | e) | $3\,241$ |
|----|----------|----|----------|----|----------|----|----------|----|----------|

$$\begin{array}{r} - 2\,798 \\ 1445 \end{array}$$

$$\begin{array}{r} - 2\,379 \\ 1\,234 \end{array}$$

$$\begin{array}{r} - 1\,769 \\ 576 \end{array}$$

$$\begin{array}{r} - 2\,659 \\ 865 \end{array}$$

$$\begin{array}{r} - 3\,974 \\ 267 \end{array}$$

Reka nisuzume iri ku rupapuro rwa 58 Mu gitabo cy'umunyeshuri

- a) $4\,571 - 3\,796 = 775$ c) $4\,234 - 3\,596 = 638$ e) $4\,567 - 2\,789 = 1\,778$
 b) $3\,423 - 2\,975 = 448$ d) $2\,345 - 1\,687 = 658$ f) $3\,567 - 1\,678 = 1\,889$

Nsuzuma ngusuzume iri ku rupapuro rwa 58 mu gitabo cy'umunyeshuri

- a) $4\,123 - 2\,079 = 2\,044$ d) $2\,346 - 1\,879 = 467$ f) $5\,000 - 4\,976 = 24$
 b) $3\,105 - 1\,987 = 1\,118$ e) $4\,241 - 3\,786 = 455$ g) $4\,000 - 3\,298 = 702$
 c) $4\,234 - 3\,978 = 256$

Imyitozo iri ku rupapuro rwa 58 mu gitabo cy'umunyeshuri.

- a) $4\,678 - 2\,789 = 1\,889$ c) $4\,009 - 3\,967 = 42$ e) $4\,341 - 1\,779 = 2\,562$
 b) $2\,785 - 1\,896 = 2\,111$ d) $3\,234 - 2\,567 = 667$

Amahurizo yo gukuramo imibare itarenze 2 000

Nsuzuma ngusuzume iri ku rupapuro rwa 59 mu gitabo cy'umunyeshuri

- 1) Umubare w'amatafari yasigaranye: $3\,567 - 987 = 2\,580$
- 2) Umubare w'ibitabo yasigaranye: $4\,123 - 1\,456 = 2\,667$
- 3) Umubare w'amavoka yasigaranye: $3\,214 - 789 = 2\,425$
- 4) Umubare w'abaturage bari mu bindi byiciro by'ubudehe: $4\,132 - 1\,968 = 2\,164$

Reka nisuzume iri ku rupapuro rwa 59 mu gitabo cy'umunyeshuri

- 1) Umubare w'inzu: $4\,356 - 2\,789 = 1\,567$
- 2) Amagi asigaye: $3\,456 - 987 = 2\,469$
- 3) Umubare w'ibiti: $4\,321 - 3\,567 = 754$

Imyitozo iri ku rupapuro rwa 60 mu gitabo cy'umunyeshuri

- 1) a) $A\,1 + C\,1 = 4\,254 + 659 = 4\,913$ d) $A\,2 + D\,2 = 3\,672 + 1\,279 = 4\,951$
 b) $A\,1 + D\,1 = 4\,254 + 591 = 4\,845$ e) $A\,3 + C\,4 = 2\,675 + 1\,99 = 2\,874$
 c) $A\,2 + C\,2 = 3\,672 + 1\,098 = 4\,770$ f) $A\,3 + D\,3 = 2\,675 + 1\,597 = 4\,272$
- 2) a) $A\,1 - B\,1 = 4\,254 - 2\,697 = 1\,557$ d) $A\,1 - D\,3 = 4\,254 - 1\,597 = 2\,657$
 b) $A\,1 - C\,1 = 4\,254 - 659 = 3\,595$ e) $A\,2 - B\,2 = 3\,672 - 2\,825 = 847$
 c) $A\,1 - D\,1 = 4\,254 - 591 = 3\,663$ f) $A\,2 - C\,2 = 3\,672 - 1\,098 = 2\,574$

2.9.7 Ikigwa cya karindwi: Gukuba imibare igikubo kitarenze 5 000

(Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa uko bakuba umubare w'imibarwa itatu n'undi w'imibarwa 2 igikubo ntikirenge 2 000.

Ubumenyigiro

Gukuba umubare w'imibarwa itatu n'undi w'imibarwa 2 igikubo ntikirenge 5 000 no kubikoresha mu buzima busanzwe.

Ubukeshya

Gutekereza neza kandi vuba, kwigirira ikizere no gukora cyane.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gukuba imibare y'imibarwa 2 n'umubare w'umubarwa 1 igikubo cyayo kitarenga 2 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara, ibibarisho
- Amakarita y'imibare ari mu mabara atandukanye n'utubarisho dutandukanye

d. Ibikorwa by'imyigire n'imyigishirize

Imyigire n'imyigishirize yo gukuba imibare ihuye n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere.

e. Ikomatany ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko:

- Bakuba umubare w'imibarwa itatu n'undi w'imibarwa 2 n'amategoko bakurikiza.
- Bakora amahurizo arimo gukuba umubare w'imibarwa itatu n'undi w'imibarwa 2.

f. Isuzuma

Guha abanyeshuri imyitozo n'amahurizo biri ku rupapuro rwa 61 mu gitabo cy'umunyeshuri yo gukuba umubare w'imibarwa itatu n'undi w'imibarwa 2.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Ikuba ry'umubare w'imibarwa 3 n'undi w'imibarwa 2 igikubo kitarenze 2 000

Igikorwa cyo ku rupapuro rwa 60 mu gitabo cy'umunyeshuri

a)	295	b)	198	c)	356	d)	139	e)	108	f)	209	g)	247	h)	169
	$\times 15$		$\times 19$		$\times 12$		$\times 34$		$\times 45$		$\times 23$		$\times 19$		$\times 24$
	4 425		3 762		4 272		4 726		4 860		4 807		4 693		4 056

Nsuzuma ngusuzume ku rupapuro rwa 61 mu gitabo cy’umunyeshuri

- a) $237 \times 21 = 4\,977$ d) $193 \times 25 = 4\,825$ f) $317 \times 15 = 4\,755$
 b) $159 \times 29 = 4\,611$ e) $219 \times 18 = 3\,942$ g) $412 \times 12 = 4\,944$
 c) $368 \times 13 = 4\,784$

Ibisubizo by’imyitozo iri ku rupapuro rwa 61 mu gitabo cy’umunyeshuri

- a) $156 \times 29 = 4\,524$ d) $156 \times 24 = 3\,744$
 b) $156 \times 19 = 2\,964$ e) $156 \times 31 = 1\,736$
 c) $156 \times 18 = 2\,808$ f) $156 \times 13 = 2\,028$

Amahurizo yo gukuba umubare w’imibare 3 n’undi w’imibare 2 igikubo kitarenze 5 000**Nsuzuma ngusuzume iri ku rupapuro rwa 62 – 63 mu gitabo cy’umunyeshuri**

- 1) Igisubizo: inanasi $15 \times 316 = 4\,740$
 2) Afite amagi: $159 \times 30 = 4\,770$

Reka nisuzume iri ku rupapuro rwa 63 mu gitabo cy’umunyeshuri

Ibyo mfite	Ibyo mbazwa	Inzira igisubizo
1) Ibihande 28, buri gihande kiriho intebe 189.	Umubare w’intebe ziri muri icyo cyumba zose.	Intebe: $189 \times 28 = 5\,292$
2) Imirongo 245, buri murongo uriho abasirikari 19.	Umubare w’abasirikari bitabiriye umunsi mukuru.	Abasirikari: $19 \times 245 = 4\,655$

Ikuba ry’ imibare na 100 na 1000 igikubi kitarenze 5 000**Reka nisuzume iri ku rupapuro rwa 63 mu gitabo cy’umunyeshuri**

- a) $42 \times 100 = 4\,200$ d) $36 \times 100 = 3\,600$
 b) $37 \times 100 = 3\,700$ e) $49 \times 100 = 4\,900$
 c) $2 \times 1\,000 = 2\,000$ f) $1 \times 1\,000 = 1\,000$

Ibisubizo by’imyitozo iri ku rupapuro rwa 64 mu gitabo cy’umunyeshuri

- a) $1\,000 \times 3 = 3\,000$ e) $1\,000 \times 4 = 4\,000$
 b) $46 \times 100 = 4\,600$ f) $35 \times 100 = 3\,500$
 c) $5 \times 1\,000 = 5\,000$ g) $3 \times 1\,000 = 3\,000$
 d) $28 \times 100 = 2\,800$ h) $2 \times 1\,000 = 2\,000$

2.9.8 Ikigwa cya 8: Kugabanya imibare itarenze 5 000 (Amasomo 3)

a. Intego

Ubumenyi

Gusobanukirwa uko bagabanya umubare w'imibarwa ine n'umubare w'umubarwa 1 imibare itarenze 5000.

Ubumenyigiro

Kugabanya umubare w'imibarwa ine n'umubare w'umubarwa 1 imibare itarenze 5 000.

Ubukeshya

Gutekereza neza kandi vuba Kwigirira ikizere no gukora cyane.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo kugabanya imibare itarenze 2 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara, ibibarisho
- Amakarita y'imibare ari mu mabara atandukanye n'utubarisho dutandukanye

d. Ibikorwa by'imyigire n'imyigishiroze

Imyigire n'imyigishirize yo kugabanya imibare ihuye n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko:

- Bagabanya imibare itarenze 5 000 n'amategeko bakurikiza.
- Bakora amahurizo arimo kugabanya umubare w'imibarwa ine n'undi w'umubarwa 1

f. Isuzuma

Guha abanyeshuri imyitozo n'amahurizo biri ku rupapuro rwa 66 mu gitabo cy'umunyeshuri yo kugabanya imibare itarenze 5000.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'uyu mutwe

Igabanya ridasagura ry' imibare 4 n'umubare w' umubarwa 1 imibare itarenze 5000

Igikorwa cyo ku rupapuro rwa 65 mu gitabo cy'umunyeshuri

- a) $3\,975 : 3 = 1\,325$ c) $4\,985 : 5 = 997$ e) $4\,256 : 7 = 608$
b) $4\,648 : 4 = 1\,162$ d) $2\,706 : 6 = 451$ f) $3\,872 : 8 = 484$

Nsuzuma ngusuzume ku rupapuro rwa 65 mu gitabo cy'umunyeshuri

- a) $4\,095 : 5 = 819$ d) $4\,864 : 8 = 661$ f) $4\,868 : 4$
b) $4\,564 : 9 = 507$ e) $3\,966 : 6 = 1\,217$ g) $4\,896 : 3 = 1\,632$
c) $4\,856 : 7 = 708$

Reka nisuzume iri ku rupapuro rwa 65 mu gitabo cy'umunyeshuri

- a) $4\,985 : 5 = 997$ c) $2\,736 : 9 = 304$
b) $3\,872 : 8 = 484$ d) $4\,963 : 7 = 709$

Ibisubizo by'imyitozo iri ku rupapuro rwa 66 mu gitabo cy'umunyeshuri

- 1) a) $4\,765 : 5 = 953$ c) $3\,584 : 7 = 512$ e) $4\,563 : 9 = 507$
b) $4\,698 : 6 = 783$ d) $2\,976 : 8 = 372$ f) $2\,976 : 6 = 496$
2) a) $765 : 5 = 153$ b) $496 : 4 = 124$ c) $2\,976 : 6 = 496$

Amahurizo yo kugabanya

Nsuzuma ngusuzume iri ku rupapuro rwa 67 mu gitabo cy'umunyeshuri

	Ibyo mfite	Ibyo mbazwa	Igisubizo
1	Ibitabo byasanganyijwe ni 4 581. Umubare w'ibigo ni 9.	Umubare w'ibitabo bahaye buri kigo.	Buri kigo cyahawe ibitabo ni $4\,581 : 9 = 509$
2	Umubare w'ibigo nderabuzima ni 7 Ibitanda byatanze ni 4 991.	Umubare w'ibitanda bahaye buri kigo nderabuzima.	Buri kigo nderabuzima cyahawe ibitanda ni $4\,991 : 7 = 713$
3.	Ingemwe z'ikawa ni 4 986 Imirenge ni 9.	Ingemwe buri murenge wahawe.	Buri murenge wahawe ingemwe ni $4\,986 : 9 = 554$
4	Inanasi zose yasaruye ni 3 795. Umubare w'ibihembwe ni 5.	Inanasi yasaruye mu gihembwe 1.	Mu gihembwe 1 yasaruye inanasi ni $3\,795 : 5 = 759$

Reka nisuzume iri ku rupapuro rwa 67 mu gitabo cy’umunyeshuri

	Ibyo mfitse	Ibyo mbazwa	Igisubizo
1	Inebe zose zatanzwe ni 3 848. Umubare w'ibigo ni 8	Umubare w'intebe bahaye buri kigo.	Buri kigo cyahawe intebe ni $3\,848 : 8 = 481$
2	Umubare w'amabati yose ni 2 598 Abubatsi ni 6.	Amabati bazaha buri mwubatsi.	Buri mwubatsi azahabwa amabati ni $2\,598 : 6 = 433$.
3.	Amashu yose ni 4 764. Ibigo ni 4.	Amashu buri buri kigo kibona.	Buri kigo kibona amashu ni $4764 : 4 = 1191$
4	Imifuka ya sima yose ni 4 365. Amezi ni 3.	Imifuka yacuruye mu kwezi.	Mu kwezi yacuruye imifuka ni $4\,365 : 3 = 1\,455$

2.10 Gusoza umutwe

a. Inshamake y'ibikubiye muri uyu mutwe

- Kubara, gusoma, kwandika, gutondeka no kugereranya neza imibare ishyyitse kuva kuri 0 kugera kuri 5 000, gusesengura no gukoresha neza kandi byihuse amategeko y'ibara (+, −, ×, :) mu mibare ishyyitse.
- Gutandukanya imibare y'igiharwe n'imibare itari igiharwe.

b. Ubumenyi bw'inyongera umwarimu asabwa kugira

- Kumenya kuyobora ibikorwa byose kandi yita kuri buri munyeshuri nta we asize inyuma.
- Gusobanura ku buryo bwimbitse uko basoma n’uko bandika imibare yose mu magambo no mu mibare.
- Gutegura no gukoresha neza imfashanyigisho zinyuranye.
- Kumenya uko yacengeza ingingo nsanganyamasomo igihe yigisha Imibare.
- Kumenya neza imyigishirize y’Imibare ijyanye n’integanyanyigisho ishingiyeye ku bushobozi.

c. Ibisubizo by'isuzuma risoza umutwe wa 2 riri ku rupapuro rwa 68 mu gitabo cy'umunyeshuri.

- 1) a) Ibihumbi bine magana kenda na mirongo irindwi n'umunani.
- 2) a) 4 957 b) 3 769
- 3) a) 4 875
- 4) a) 6 Ibinyabumwe b) 2 Ibinyagihumbi c) 3 Ibinyacumi
d) 9 Ibinyajana
- 5) a) $4\,659 < 4\,695$ b) $4\,871 > 4\,867$
- 6) 4 789, 4 798, 4 879, 4 897, 4 978, 4 987

7) 3 876, 3 867, 3 786, 3 768, 3 678, 3 687

8) a) $3\,154 + 1\,659 = 4\,813$ b) $3\,876 + 1\,112 = 4\,988$

9) a) $4\,587 - 3\,267 = 1\,320$ b) $3\,967 - 2\,563 = 1\,404$

10)a) 412	b) 105	c) 209	d) 124	e) 137	f) 108
$\times 12$	$\times 47$	$\times 19$	$\times 35$	$\times 36$	$\times 45$
4944	4935	3971	4340	4932	4860

11)a) $4\,959 : 9 = 551$ d) $4\,536 : 7 = 648$

b) $3\,785 : 5 = 797$ e) $3\,952 : 8 = 494$

c) $2\,988 : 6 = 498$ f) $2\,496 : 4 = 624$

12) Abatuye muri ako kagari ni abagore: $879 + 839 + 3\,267 = 4\,985$

13) Abagabo ni: $4\,789 - 2\,097 = 2\,692$

14) Hatewe ibiti: $276 \times 18 = 4\,968$

15) Buri mucuruzi azahabwa imifuka: $4\,298 : 7 = 614$

d. Imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire.

1) Andika mu mibare cyangwa mu magambo

a) Ibihumbi bibiri na magana inani)

b) 3 210:

2) Shaka umubare wasesenguwe

a) $4\,000 + 500 + 90 =$

b) $(1\,000 \times 1) + (100 \times 3) + (10 \times 2) + (1 \times 2) =$

3) Gereranya imibare ukoresheje $<, >$ cyangwa $=$

a) 1 500 ... 5 000

b) 3 250 ... 3 050

c) 4 380 ... 4 380

4) Tondeka uhareye ku mubare muto ujya ku mubare munini

1 800, 3 000, 4 500, 3 900 $\longrightarrow$

5) Tondeka uhareye ku mubare munini ujya ku mubare muto

2 900, 4 320, 3 710, 1 915 $\longrightarrow$

6) Kora

a) $2\,314 + 2\,135 =$

c) $321 \times 4 =$

b) $4\,786 - 3\,546 =$

d) $3\,963 : 3 =$

7) Kora aya mahurizo

a) Mbabazi yabonye amanota 121 mu mibare mu gihembwe cya mbere, 131 mu gihembwe cya kabiri na 143 mu gihembwe cya gatatu. Shaka umubare

w'amanota yagize muri ibyo bihembwe byose.

- b) Umudugudu w'Imena utuwe n'abaturage 2 519. Niba 2 307 muri bo ari bo baguze mituweli ubwo ni bangahe bataguze mituweli?
- c) Mu cyumba k'inama harimo intebe 112. Niba buri ntebe yicarwaho n'abantu 4 ubwo muri icyo cyumba hajyamo abantu bangahe?
- d) Ikigo kigenzura imodoka bagenzura imodoka 2 469 mu minsi 3. Niba bagenzura imodoka zingana ku munsu ubwo ku munsu bagenzura imodoka zinganahe?

e) Ibisubizo by'imyitozo y'abanyeshuri bagenda buhoro mu myigire

- 1) a) 2 800 b) Ibihumbi bitatu magana abiri na cumi.
- 2) a) 4 590 b) 1 322
- 3) a) $1\,500 < 5\,000$ b) $3\,250 > 3\,050$ c) $4\,380 = 4\,380$
- 4) 1 800, 3 000, 3 900, 4 500 5) 4 320, 3 710, 2 900, 1 915
- 6) a) 4 449 b) 1 240 c) 1 284 d) 1 321
- 7) a) Umubare w'amanota yagize mu bihembwe byose: $121 + 131 + 143 = 395$
b) Abataraguze mituweli: $2\,519 - 2\,307 = 212$
c) Muri icyo cyumba hajyamo abantu: $112 \times 4 = 448$
d) Ku munsu bagenzura imodoka : $2\,469 : 3 = 823$

f) Imyitozo y'umwihariko ihabwa abanyeshuri bihuta cyane mu myigire kurusha abandi.

- 1) Andika mu mibare cyangwa mu magambo:
a) 4 897 :
b) Ibihumbi bitatu magana arindwi mirongo ikenda na gatandatu:
- 2) Shaka umubare wasesenguwe
a) $j\,9\,c\,3\,h\,4\,b\,4 =$ b) $c\,5\,j\,9\,b\,8\,h\,2 =$ c) $b\,8\,h\,2\,c\,7\,j\,4 =$
- 3) Koresha $<, >$ cyangwa = ugereranye iyi mibare
a) $j\,3\,c\,3\,h\,2\,b\,7 \dots b\,8\,h\,3\,c\,9\,j\,7$ c) $b\,3\,h\,4\,c\,5\,j\,6 \dots c\,4\,j\,6\,b\,8\,h\,3$
b) $c\,8\,j\,6\,b\,4\,h\,3 \dots j\,3\,c\,5\,h\,2\,b\,7$ d) $j\,5\,c\,7\,h\,4\,b\,9 \dots b\,2\,h\,4\,c\,4\,j\,6$
- 4) Tondeka uhareye ku mubare muto ujya ku mubare munini
 $4\,539, 4\,395, 4\,953, 4\,593, 4\,359, 4\,935, \longrightarrow$
- 5) Tondeka uhareye ku mubare munini ujya ku mubare muto
 $3\,897, 3\,798, 3\,987, 3\,978, 3\,879, 3\,789 \longrightarrow$
- 6) Kora iyi myitozo
a) $1\,987 + 2\,896 =$ c) $245 \times 19 =$
b) $5\,000 - 2\,879 =$ d) $4\,984 : 7 =$

7) Kora aya mahurizo

- a) Mu matora ashize UWAMAHORO yagize 1 987, GISA agira 1 678 naho MUDENGE agira 989. Shaka umubare w'abatoye bose hamwe.
- b) Umwaka ushize INGABIRE yasaruye ibitoki 4 579. Ibitoki 156 muri byo yabihaye abaturanyi be, 365 abifashisha abatishoboye, naho 197 biribwa n'umuryango we. Ibisigaye arabigurisha. Shaka umubare w'ibitoki yagurishije .
- c) Ishyirahamwe ry'ababaji rikora inzugi 92 buri munsu. Shaka umubare w'inzugi iryo shyirahamwe rikora mu munsu 49.
- d) Gabanya ku buryo bungana amakarito 4572 y'amasabune amaduka 9. Buri duka uzariha amakarito angahe?

g) Ibisubizo by'Imyitozo ihabwa abanyeshuri bihuta cyane mu myigire kurusha abandi

- 1) a) Ibihumbi bine magana inani mirongo ikenda na karindwi
b) 3796
- 2) a) 4934 b) 2958 c) 2478
- 3) a) $4\,934 > 3798$ c) $4\,653 > 3648$
b) $3\,684 > 2357$ d) $4\,579 < 4642$
- 4) 4 359, 4 395, 4 539, 4 593, 4 935, 4 953
3 987, 3 978, 3 897, 3 798, 3 789
- 6) a) 4 883 b) 2 121 c) 4 655 d) 712
- 7) a) Umubare w'abatoye bose hamwe: $1\,987 + 1\,678 + 989 = 4\,654$
b) Umubare w'ibitoki yagurishije: $4\,579 - (156 + 365 + 197) = 3\,861$
c) Umubare w'inzugi zikorwa: $92 \times 49 =$ Inzugi 4 508
d) Buri duka nzariha amakarito: $4\,572 : 9 = 508$

Umutwe wa 3: Imibare kuva kuri 0 kugera ku 10 000

3.1 Ubushobozi bw'ingenzi bugamijwe

Kubara, gusoma, kwandika, gutondeka, kugereranya, guteranya, gukuramo, gukuba no kugabanya imibare ishyyitse kuva kuri 0 kugera ku 10 000

3.2 Ibyizwe mbere bifitanye isano n'uyu mutwe

Kubara, gusoma, kwandika, gutondeka, kugereranya, guteranya, gukuramo, gukuba no kugabanya imibare ishyyitse kuva kuri 0 kugera ku 5 000

3.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho

- *Ubwuzuzanye bw'ibitsina byombi* bugaragara igihe abanyeshuri bakora imyitozo nta vangura.
- *Uburezi budaheza* bugaragara mu guha abanyeshuri bose amahirwe angana yo kwiga.
- *Gufata neza ibidukikije* bugaragara igihe abanyeshuri bose basukura aho bakorera cyangwa bafata neza imfashanyigisho bakoresheje.
- *Umuco wo gukoresha neza umutungo* ugaragara mu myitozo isaba abanyeshuri gucunga neza imfashanyigisho no gukora gahunda y'ibikorwa birinda gusesagura.
- *Umuco w'amahoro* ugaragara mu bikorwa byo mu matsinda aho umunyeshuri akorana na bagenzi be mu bwumvikane nta we abangamiye.

3.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe

- *Gushyikirana n'abandi* igihe akorera mu matsinda cyangwa afatanye n'abandi.
- *Gukoresha imvugo isobanutse* igihe asoma imibare
- *Guhanga udushya* akora udukarita twanditseho imibare.
- *Kwikemurira ibibazo* mu gihe akoresha imibare neza mu buzima busanzwe
- *Kugira amashyushyu*, yo guhora yiyungura ubumenyi mu mibare.

3.5 Amagambo umunyeshuri yunguka muri uyu mutwe

Kugabanya uringaniza : kugabanya ku buryo bungana.

Guteranya buhagazi: guteranya imibare itondetse umwe muni y'undi.

Gukuramo buhagazi : gukuramo imibare itondetse umwe muni y'undi.

Kugabanya mu mahembe: kugabanya mu buryo buhagaze ukoresheje imirongo ibiri iteye nk'amahembe (| -).

3.6 Uburyo bwo gusesengura ikibazo nyamukuru

- Umwarimu asomesha agakuru k’umuhinzi mworozzi utabasha kumenya neza ingano y’ibikomoka ku buhinzi bwe n’ubworozi bwe.
- Asaba abanyeshuri kukaganiraho no kugatangaho ibitekerezo bagaragaza uko bamufasha gukora akazi ke mu buryo bunoze.
- Abasobanurira ko ibisubizo nyabyo kandi byuzuye bazajya babibona mu masomo bagiye kwiga muri uyu mutwe.

3.7 Uko umwarimu yita by’umwihariko ku bafite ibibazo byihariye yigisha uyu mutwe

- Abafata bitinze bategurire imyitozo usanga muri gitabo cy’umwarimu; yoroshye ugereranyije n’iy’abandi .
- Abafite ubumuga bw’ingingo banza umenye izo ari zo ubategurire imfashanyigisho zihariye n’imyitozo wagenera buri wese.
- Abafite impano yo kumva no gukora vuba cyane bahe imyitozo usanga mu gitabo cy’umwarimu, ituma batarangaza abandi.

3.8 Ibyigwa biri muri uyu mutwe wa 3

	Ibyigwa	Umubare w’amasomo: 22
1	Gusoma no kwandika imibare kuva kuri 0 kugera ku 10 000	2
2	Gusesengura imibare kuva kuri 0 kugera ku 10 000	1
3	Gutondeka imibare kuva kuri 0 kugera ku 10 000	1
4	Kugereranya imibare kuva kuri 0 kugera ku 10 000	1
5	Guteranya imibare igiteranyo kitarenga 10 000	4
6	Gukuramo imibare itarenze 10 000	4
7	Gukuba imibare igikubo kitarenze 10 000	4
8	Kugabanya imibare itarenze 10 000	3
9	Isuzuma risoza umutwe	2

3.9 Imyigire n’imyigishirize ya buri kigwa

3.9.1 Ikigwa cya mbere: Gusoma no kwandika imibare kuva kuri 0 kugera kuri 10 000 (Amasomo 2)

a. Intego

Ubumenyi

Kuvuga imvugo yumvikana igihe asoma imibare kuva kuri 0 kugera 2000 mu mibare no mu magambo.

Ubumenyigiro

Gusoma no kwandika neza imibare itarenze 10 000 aho ari ho hose.

Ubukasha

Kugaragaza gahunda mu bikorwa bya buri muni.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gusoma no kwandika imibare itarengeje 5 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara.
- Ibibarisho n'amakarita y'imibare ari mu mabara atandukanye.

d. Ibikorwa by'imyigire n'imyigishirize

Imyigire n'imyigishirize yo gusoma no kwandika imibare ihura n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko baca imbonerahamwe y'ibara, uko bandika n'uko basoma imibare n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 71 mu gitabo cy'umunyeshuri yo kwandika imibare mu mbonerahamwe y'ibara, kuyisoma baranguruye ijwi no kuyandika mu mibare no mu magambo.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gusoma imibare kuva kuri 0 kugera ku 10 000

Imyitozo yo ku rupapuro rwa 70 mu gitabo cy'umunyeshuri

Ibisubizo byayo biratandukanye bitewe n'imibare buri munyeshuri azikorera n'uburyo azayisoma.

Urugero: 6143: Ibihumbi bitandatu n'ijana na mirongo ine na gatatu

Reka nisuzume iri kurupapuro rwa 70 mu gitabo cy'umunyeshuri.

Ibisubizo biratandukanye bitewe n'imibare buri munyeshuri azikorera n'uburyo azayisoma.

Kwandika imibare kuva kuri 0 kugera ku 10 000

Igikorwa kiri ku rupapuro rwa 71 mu gitabo cy'umunyeshuri.

Ibisubizo biratandukanye bitewe n'uko umunyeshuri azandika kandi akanasoma umubare yakoze akoresheje amakarita.

Urugero: 6 789: Ibihumbi bitandatu magana arindwi mirongo inani n'ikenda

Reka nisuzume iri ku rupapuro rwa 71 mu gitabo cy'umunyeshuri

Ibisubizo bya nsuzuma ngusuzume biratandukanye bitewe n'imibare buri munyeshuri azikorera.

Urugero: 5 432 : Ibihumbi bitanu magana ane mirongo itatu na kabiri

Imyitozo iri ku rupapuro rwa 71 mu gitabo cy'umunyeshuri

- a) 5 100, 5 300, 5 500, 5 700, 5 900
- b) 6 050, 6 150, 6 250, 6 350, 6 450
- c) 8 200, 8 600; 9 000, 9 400, 9 800

Reka nisuzume iri ku rupapuro rwa 72 mu gitabo cy'umunyeshuri

- 1) 5 018: Ibihumbi bitanu na cumi n'umunani.
5 019: Ibihumbi bitanu na cumi n'ikenda.
- 2) 6 031: Ibihumbi bitandatu na mirongo itatu na rimwe.
6 032: Ibihumbi bitandatu na mirongo itatu na kabiri.
7 659: Ibihumbi birindwi magana atandatu na mirongo itanu na rimwe
- 3) 7 652: Ibihumbi birindwi magana atandatu na mirongo itanu na kabiri.
7 653: Ibihumbi birindwi magana atandatu na mirongo itanu na gatatu.
7 654: Ibihumbi birindwi magana atandatu na mirongo itanu na kane.
- 4) 8 098: Ibihumbi umunani na mirongo ikenda n'umunani.
8 099: Ibihumbi umunani na mirongo ikenda n'ikenda.
- 5) 9 122: Ibihumbi ikenda n'ijana na makumyabiri na kabiri.
- 6) 9 267: Ibihumbi ikenda magana abiri na mirongo itandatu na karindwi.
9 268: Ibihumbi ikenda magana abiri na mirongo itandatu n'umunani.

Ibisubizo by'imyitozo iri ku rupapuro rwa 72 mu gitabo cy'umunyeshuri

- 1) a) Ibihumbi ikenda magana abiri na mirongo ine n'ikenda
b) 6 819
- 2) Ibisubizo biratandukanye. Urugero: 8 432
- 3) 9 199, 9 399, 9 599, 9 799, 9 999
- 4) a) A = Ibihumbi ikenda magana arindwi na mirongo kenda na kane
b) A2= 6 805
c) A3= Ibihumbi bitandatu magana arindwi na mirongo itatu na kabiri
d) B1= 7 305
e) B2= Ibihumbi bitanu magana ikenda na mirongo itatu na gatandatu
f) B3= 8 709

g) C1= Ibihumbi umunani magana ikenda na mirongo itatu na gatanu

h) C2= 9 557

i) C3= Ibihumbi umunani magana arindwi na cumi n'ikenda

3.9.2 Ikigwa cya kabiri: Gusesengura imibare kuva kuri 0 kugera ku 10 000 (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa umwanya wa buri mubarwa ku mubare ugizwe n'imibarwa ine.

Ubumenyigiro

Gusesengura imibare itarenze 10 000 mo ibinyabumwe, ibinyacumi, ibinyajana n'ibinyagihumbi.

Ubukeshya

Gutekereza neza kandi vuba.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gusesengura imibare itarengeje 5 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara
- Ibibarisho n'amakarita y'imibare ari mu mabara atandukanye

d. Ibikorwa by'imyigire n'imyigishirize

Imyigire n'imyigishirize yo gusesengura imibare ihuye n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko baca imbonerahamwe y'ibara, uko basesengura imibare n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 74 mu gitabo cy'umunyeshuri yo kwandika imibare mu imbonerahamwe y'ibara no kuyisesengura.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gusengura imibare kuva kuri 0 kugera ku 10 000

Igikorwa cya 1 ku rupapuro rwa 73 mu gitabo cy'umunyeshuri

1)

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
5	4	6	5
6	3	9	2
7	9	6	8
8	9	7	4
9	5	3	9
6	7	4	9

- 2) a) $8\ 654 = h\ 8\ j\ 6\ c\ 5\ b\ 4$ d) $5\ 923 = b\ 3\ j\ g\ c\ 2\ h\ 5$
 b) $6\ 974 = c\ 7\ h\ 6\ b\ 4\ j\ g$ e) $6\ 179 = c\ 7\ j\ i\ h\ 6\ b\ g$
 c) $7\ 935 = j\ 9\ b\ 5\ h\ 7\ c\ 3$ f) $9\ 756 = j\ 7\ b\ 6\ h\ 9\ c\ 5$
- 3) a) $h\ 6\ c\ 7\ b\ 5\ j\ 3 = 6\ 375$ d) $c\ 5\ j\ 8\ h\ 8\ b\ 9 = 8\ 859$
 b) $b\ 9\ j\ 6\ h\ 7\ c\ 1 = 7\ 619$ e) $b\ 7\ c\ 9\ h\ 9\ j\ 9 = 9\ 997$
 c) $j\ 7\ b\ 4\ c\ 6\ h\ 5 = 5\ 764$ f) $c\ 9\ h\ 7\ b\ 4\ j\ 4 = 7\ 494$

Igikorwa cya kiri ku rupapuro rwa 74 mu gitabo cy'umunyeshuri.

- a) $6\ 248 = 6\ 000 + 200 + 40 + 8$
 b) $5\ 879 = (5 \times 1\ 000) + (8 \times 100) + (7 \times 10) + (9 \times 1)$
 c) $7\ 574 = \text{ibinyagihumbi } 7 + \text{ibinyajana } 5 + \text{ibinyacumi } 7 + \text{ibinyabumwe } 4$
 d) $7\ 649 = 7\ 000 + 600 + 40 + 9$
 e) $6\ 719 = (6 \times 1\ 000) + (7 \times 100) + (1 \times 10) + (9 \times 1)$
 f) $8\ 659 = \text{ibinyagihumbi } 8 + \text{ibinyajana } 6 + \text{ibinyacumi } 5 + \text{ibinyabumwe } 9$

Nsuzuma ngusuzume iri ku rupapuro rwa 74 mu gitabo cy'umunyeshuri.

- a) 8 547 b) 9 876 c) 7 250

Ibisubizo by'imyitozo iri ku rupapuro rwa 74 mu gitabo cy'umunyeshuri

- 1) a) Ibinyagihumbi 9 d) Ibinyacumi 5
 b) Ibinyabumwe 7 e) Ibinyagihumbi 5
 c) Ibinyajana 2 f) Ibinyajana 5
- 2) a) $b\ 8\ h\ 5\ c\ 7\ j\ 9 = 5\ 978$ d) $j\ 5\ b\ 8\ c\ 7\ h\ 2 = 2\ 578$
 b) $b\ 3\ c\ 6\ h\ 3\ j\ 1 = 6\ 163$ e) $j\ 8\ b\ 2\ h\ 9\ c\ 7 = 9\ 872$
 c) $c\ 3\ h\ 7\ b\ 6\ j\ 7 = 7\ 736$ f) $b\ 3\ h\ 8\ c\ 7\ j\ 6 = 8\ 673$
- 3) a) $8\ 567 = h\ 8\ j\ 5\ c\ 6\ b\ 7$ d) $6\ 452 = h\ 6\ j\ 4\ c\ 5\ b\ 2$
 b) $7\ 526 = h\ 7\ j\ 5\ c\ 2\ b\ 6$ e) $6\ 435 = h\ 6\ j\ 4\ c\ 3\ b\ 5$

c) $9\ 615 = h\ 9\ j\ 6\ c\ 1\ b\ 5$ f) $7\ 361 = h\ 7\ j\ 3\ c\ 6\ b\ 1$

3.9.3 Ikigwa cya gatatu: Kugereranya imibare kuva kuri 0 kugera ku 10 000 (Isomo 1)

a. Intego

Ubumenyi

Kumenya ibyinshi, ibike n'ibingana bakoresheje imibare itarenze 10 000

Ubumenyigiro

Kugereranya imibare itarenze 10 000 bakoresha ibimenyetso by'igereranya $<$, $>$, cyangwa $=$

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo kugereranya imibare itarengeje 5 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara
- Ibibarisho n'amakarita y'imibare ari mu mabara atandukanye.

d. Ibikorwa by'imyigire n'imyigishirize

Imyigire n'imyigishirize yo kugereranya imibare ihuye n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uburyo bubiri bakoresha mu kugereranya imibare n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 74 mu gitabo cy'umunyeshuri yo kugereranya imibare.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'uyu mutwe

Kugereranya imibare 2 itarenze 10 000

Igikorwa cya 1 kiri ku rupapuro rwa 75 mu gitabo cy'umunyeshuri

- a) $7\ 456 < 8\ 336$ b) $9\ 576 > 9\ 321$

Igikorwa cya 3 ku rupapuro rwa 76 mu gitabo cy'umunyeshuri

- a) $9\ 723 > 9\ 327$ c) $7\ 215 > 7\ 152$ e) $5\ 241 < 7\ 514$
b) $6\ 472 < 6\ 742$ d) $8\ 617 > 6\ 817$ f) $6\ 072 = 6\ 072$

Ibisubizo bya nsuzuma ngusuzume iri mu gitabo cy'umunyeshuri ku rupapuro rwa 76 – 77

- 1) a) Munanira II b) Nyakabanda II
2) a) $7\,865 < 9\,876$ d) $9\,876 > 8\,654$ f) $7\,865 < 9\,876$
b) $7\,865 > 8\,654$ e) $9\,876 > 6\,896$ g) $8\,654 > 6\,896$
c) $7\,865 > 6\,896$

Reka nisuzume iri ku rupapuro rwa 77 mu gitabo cy'umunyeshuri

- a) $2\,087 > 1\,678$ b) $2\,087 < 6\,167$ c) $1\,678 > 6\,167$

Ibisubizo by'imyitozo iri ku rupapuro rwa 77 mu gitabo cy'umunyeshuri

- a) $8\,459 = 8\,459$ c) $9\,628 < 9\,657$ e) $6\,734 = 6\,734$
b) $7\,384 > 7\,249$ d) $5\,493 > 5\,234$ f) $7\,835 < 8\,435$

3.9.4 Ikigwa cya kane: Gutondeka imibare kuva kuri 0 kugera ku 10 000 (Amasomo 2)

a. Intego

Ubumenyi

Kumenya iby'inshi n'ibike bakoresheje imibare itarenze 10 000.

Ubumenyigiro

Gutondeka imibare itarenze 10 000 kuva ku muto ujya ku munini no kuva ku munini ujya ku muto.

Ubukeshya

Gutekereza neza kandi vuba.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gutondeka imibare itarengeje 5 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara;
- Ibibarisho n'amakarita y'imibare ari mu mabara atandukanye;

d. Ibikorwa by'imyigire n'imyigishirize

Imyigire n'imyigishirize yo gutondeka imibare ihuye n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uburyo bubiri bakoresha batondeka imibare n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 80 mu gitabo cy'umunyeshuri yo gutondeka imibare.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gutondeka imibare kuva kuri 200 kugera ku 10 000

Gutondeka imibare uva ku muto ujya ku munini.

Igikorwa cya 1 ku rupapuro rwa 78 mu gitabo cy'umunyeshuri

- | | |
|---------------------------------------|--------------------------------------|
| 1) 6 439, 7 564, 8 943, 9 754, 9 825, | 3) 5 739, 7 193, 7 496, 8 049, 9 384 |
| 2) 5 482, 6 357, 6 497, 7 845, 8 015 | 4) 6 427, 7 409, 8 274, 8 391, 9 437 |

Igikorwa cya 2 ku rupapuro rwa 79 mu gitabo cy'umunyeshuri

- | | |
|--------------------------|--------------------------|
| 1) 5 386 < 6 218 < 7 804 | 2) 5 748 < 6 804 < 7 358 |
|--------------------------|--------------------------|

Gutondeka imibare uva ku munini ujya ku muto

Igikorwa cya 1 ku rupapuro rwa 79 mu gitabo cy'umunyeshuri

- | | |
|------------------------|------------------------|
| 1) 9 354, 6 507, 5 734 | 3) 8 654, 6 901, 5 789 |
| 2) 9 675, 6 709, 5 084 | 4) 8 765, 6 057, 5 293 |

Igikorwa cya 2 ku rupapuro rwa 80 mu gitabo cy'umunyeshuri

- | | |
|-------------------------|------------------------|
| 1) 8 534, 7 483, 5 192, | 3) 8 976, 7 456, 6 012 |
| 2) 9 567, 7 345, 6 978, | 4) 9 271, 7 105, 6 823 |

Reka nisuzume iri ku rupapuro rwa 80 mu gitabo cy'umunyeshuri

- | | |
|-------------------------------|-------------------------------|
| a) 9 375; 8 156; 7 247; 6 015 | b) 7 542; 7 524; 7 254; 7 245 |
|-------------------------------|-------------------------------|

Ibisubizo by'imyitozo iri ku rupapuro rwa 81 mu gitabo cy'umunyeshuri

- | | |
|------------------------------|-------------------------------|
| 1) a) 7 869; 8 687; 9 876 | c) 4 576, 5 746, 6 475, 7 654 |
| b) 5 678, 7 658, 7 856 | |
| 2) a) 9 325, 5 923, 5 392 | c) 9 876, 7 698, 6789 |
| b) 6 541; 6 154; 5614; 5 146 | |

3.9.5 Ikigwa cya gatanu: Guteranya imibare igiteranyo kitarenga 10 000 (Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa uko bateranya imibare batabitsa cyangwa babitsa igiteranyo ntikirenge 10 000.

Ubumenyigiro

Guteranya batabitsa no guteranya babitsa igiteranyo ntikirenge 10 000 no kubikoresha mu buzima bwa buri muni.

Ubukeshya

Kwigirira ikizere no gukora cyane.

b. Imyitozo y'isubiramo/Intangiriro

- Imyitozo inyuranye yo guteranya imibare itarengeje 5 000 iri mu gitabo cy'umunyeshuri
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo

c. Imfashanyigisho

- Imbonerahamwe y'ibara
- Ibibarisho n'amakarita y'imibare ari mu mabara atandukanye

d. Ibikorwa by'imyigire n'imyigishirize

Imyigire n'imyigishirize yo guteranya imibare ihuye n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere.

e. Ikomatany ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko:

- Bateranya babitsa cyangwa batabitsa n'amategeko bakurikiza.
- Bakora amahurizo arimo guteranya imibare igiteranyo kitarenge 10 000.

f. Isuzuma

Guha abanyeshuri imyitozo n'amahurizo biri ku rupapuro rwa 82 na 83 mu gitabo cy'umunyeshuri byo guteranya imibare igiteranyo kitarenge 10 000.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Guteranya imibare igiteranyo cyayo kitarenze 10 000

Iteranya ritabitsa

Igikorwa cyo ku rupapuro rwa 81 mu gitabo cy'umunyeshuri

a) 6 543	b) 4 567	c) 5 123	d) 9 217	e) 8 012
<u>+ 2 310</u>	<u>+ 3 421</u>	<u>+ 3 754</u>	<u>+ 682</u>	<u>+ 987</u>
8 853	7 988	8 877	9 899	8 999

Reka nisuzume iri ku rupapuro rwa 81 mu gitabo cy'umunyeshuri

- a) $4\,125 + 3\,873 = 7\,998$ c) $5\,234 + 4\,543 = 9\,777$ e) $5\,715 + 4\,054 = 9\,769$
b) $3\,756 + 132 = 3\,888$ d) $3\,256 + 732 = 3\,988$ f) $4\,650 + 4\,239 = 8\,889$

Nsuzuma nkusuzume iri ku rupapuro rwa 82 mu gitabo cy’umunyeshuri.

- a) $4\,567 + 5\,231 = 9\,798$ d) $7\,345 + 1\,643 = 8\,988$ f) $9\,456 + 442 = 9\,898$
 b) $5\,678 + 4\,321 = 9\,999$ e) $8\,012 + 1\,986 = 9\,998$ g) $4\,567 + 4\,302 = 8\,869$
 c) $6\,123 + 2\,874 = 8\,997$

Imyitozo iri ku rupapuro rwa 82 mu gitabo cy’umunyeshuri

- a) $5\,643 + 2\,56 = 5\,899$ c) $4\,572 + 4\,316 = 8\,888$
 b) $7\,215 + 2\,784 = 9\,999$ d) $4\,567 + 421 = 4\,988$

Iteranya ribitsa

Igikorwa cyo ku rupapuro rwa 82 mu gitabo cy’umunyeshuri

a) 4 989	b) 5 345	c) 6 578	d) 8 123	e) 7 145
+ 3 465	+ 2 987	+ 2 456	+ 1 098	+ 1 879
8 454	8 332	9 034	9 221	9 024

Nsuzuma ngusuzume iri ku rupapuro rwa 83 mu gitabo cy’umunyeshuri

- a) $3\,294 + 5\,789 = 9\,083$ c) $5\,324 + 3\,678 = 9\,002$ e) $7\,689 + 1\,567 = 9\,256$
 b) $6\,095 + 2\,987 = 9\,082$ d) $4\,852 + 4\,897 = 9\,749$ f) $8\,437 + 1\,389 = 9\,826$

Reka nisuzume iri ku rupapuro rwa 83 mu gitabo cy’umunyeshuri

- a) $1\,943 + 7\,689 = 9\,632$ c) $3\,987 + 5\,679 = 9\,666$ e) $5\,795 + 3\,498 = 9\,293$
 b) $2\,976 + 6\,387 = 9\,363$ d) $4\,239 + 4\,876 = 9\,115$ f) $6\,467 + 2\,944 = 9\,411$

Imyitozo iri ku rupapuro rwa 83 mu gitabo cy’umunyeshuri.

a) 7 568	b) 8 532	c) 9 274	d) 6 765	e) 4 723
+ 1 928	+ 987	+ 389	+ 2 579	+ 5 187
9 496	9 519	9 663	9 344	9 910

Amahurizo yo guteranya imibare igiteranyo cyayo kitarenze 10 000

Nsuzuma ngusuzume iri ku rupapuro rwa 84 mu gitabo cy’umunyeshuri

	Ibyo mfite mu ihurizo	Ibyo mbazwa	Inzira n'igisubizo
1	Abana b’abahungu bakingiwe ni 5 321. Abakobwa ni 3 789.	Abana bose bakingiwe.	Abana: $5\,321 + 3\,789 = 9\,110$
2	Ibiti bateye umwaka ushize ni 3 657. Ibyo bateye uyu mwaka ni 5 794 .	Umubare w’ibiti bamaze gutera.	Ibiti: $3\,657 + 5\,794 = 9\,451$
3	Karongi yahawe ibitabo 5 423. Ngororero ibona ibitabo 3 798.	Umubare w’ibitabo byose byatanzwe.	Ibitabo: $5\,423 + 3\,798 = 9\,221$
4	Amakarito yakozwe ukwezi gushize ni 3 456. Uku kwezi ni 4 649.	Amakarito yakozwe muri ayo mezi yombi.	Amakarito: $3\,456 + 4\,649 = 8\,105$

Reka nisuzume iri ku rupapuro rwa 85 mu gitabo cy'umunyeshuri

	Ibyo mfitse mu ihurizo	Ibyo mbazwa	Inzira n'igisubizo
1	Abafana b'abagabo 7 543. Abafana b'abagore 1 978.	Umubare w'abafana.	Abafana: $7543 + 1978 = 9\ 521$
2	Ingo zo muri Kamurehe 4 987. Ingo zo muri Kabuye 4 678.	Umubare w'ingo z'iyoyire mirenge yombi.	Ingo: $4\ 987 + 4\ 678 = 9\ 665$
3	Inka zatanze muri Kayanza ni 3 576. Inka zatanze muri Kirehe ni 5 879.	Umubare w'inka zatanze muri utwo turere twombi	Inka: $3\ 576 + 5\ 879 = 9\ 455$
4	Abahungu ni 4 653. Abakobwa ni 4 978.	Umubare w'abanyeshuri bese.	Abanyeshuri: $4\ 653 + 4\ 978 = 9\ 631$

3.9.6 Ikigwa cya gatandatu: Gukuramo imibare itarenze 10 000 (Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa uko bakuramo batira cyangwa badatira imibare itarenze 10 000.

Ubumenyigiro

Gukuramo batira cyangwa badatira imibare itarenze 10000 no kubikoresha mu buzima busanzwe.

Ubukeshya

- Gutekerezanya neza kandi vuba
- Kwigirira ikizere no gukora cyane.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gukuramo imibare itarengeje 5 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara
- Ibibarisho n'amakarita y'imibare ari mu mabara atandukanye

d. Ibikorwa by'imyigire n'imyigishirize

Imyigire n'imyigishirize yo gukuramo imibare ihuye n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko:

- Bakuramo imibare batira n'amategeko bakurikiza.
- Bakora amahurizo arimo gukuramo imibare itarenze 10 000.

f. Isuzuma

Guha abanyeshuri imyitozo n'amahurizo biri ku rupapuro rwa 86 na 88 mu gitabo cy'umunyeshuri byo gukuramo imibare itarenze 10 000.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gukuramo imibare ikinyurayo cyayo kitarenze 10 000

Ikuramo ridatira ry'imibare itarenze 10 000

Igikorwa cyo ku rupapuro rwa 85 mu gitabo cy'umunyeshuri

a) 8 569	b) 9 738	c) 7 685	d) 8 679	e) 6 974
<u>– 5 417</u>	<u>– 6 315</u>	<u>– 5 452</u>	<u>– 7 543</u>	<u>– 6 432</u>
3 152	3 423	2 233	1 136	542

Nsuzuma ngusuzume iri ku rupapuro rwa 86 mu gitabo cy'umunyeshuri.

- | | |
|--------------------------|--------------------------|
| a) 9 876 – 7 645 = 2 231 | e) 9 234 – 6 023 = 3 211 |
| b) 8 567 – 5 435 = 3 132 | f) 8 456 – 5 031 = 3 425 |
| c) 7 456 – 4 142 = 3 314 | g) 7 986 – 3 654 = 4 332 |
| d) 6 345 – 4 203 = 2 142 | |

Reka nisuzume iri ku rupapuro rwa 86 mu gitabo cy'umunyeshuri.

- | | |
|--------------------------|--------------------------|
| a) 9 745 – 5 203 = 4 542 | d) 6 789 – 5 456 = 1 333 |
| b) 7 256 – 4 032 = 3 224 | e) 5 876 – 4 674 = 1 202 |
| c) 8 769 – 3 539 = 5 230 | f) 9 863 – 4 730 = 5 133 |

Imyitozo iri ku rupapuro rwa 86 mu gitabo cy'umunyeshuri.

a) 8 589	b) 7 953	c) 6 789	d) 5 765
<u>– 5 046</u>	<u>– 5 720</u>	<u>– 5 417</u>	<u>– 3 612</u>
3 543	2 233	1 372	2 153

Ikuramo ritira ry'imibare itarenze 10 000

Igikorwa cya ku rupapuro rwa 87 mu gitabo cy'umunyeshuri

a) 7 234	b) 6 013	c) 9 543	d) 8 250	e) 5 123
<u>– 5 897</u>	<u>– 5 739</u>	<u>– 8 796</u>	<u>– 6 592</u>	<u>– 2 768</u>
1 337	274	747	1 658	2 355

Nsuzuma ngusuzume iri ku rupapuro rwa 87 mu gitabo

- | | | |
|--------------------------|--------------------------|--------------------------|
| a) 5 321 – 2 789 = 2 532 | d) 8 143 – 6 759 = 1 384 | f) 6 503 – 3 967 = 2 536 |
| b) 6 024 – 4 658 = 1 366 | e) 9 012 – 8 945 = 67 | g) 8 432 – 6 579 = 1 853 |
| c) 7 431 – 5 865 = 1 566 | | |

Reka nisuzume iri ku rupapuro rwa 88 mu gitabo cy'umunyeshuri

- a) $9\,013 - 7\,457 = 1\,556$ c) $7\,432 - 5\,678 = 1\,754$ e) $5\,376 - 389 = 3\,897$
b) $8\,234 - 6\,957 = 1\,277$ d) $6\,543 - 4\,675 = 1\,868$ f) $5\,021 - 2\,658 = 2\,363$

Imyitozo iri ku rupapuro rwa 88 mu gitabo cy'umunyeshuri

- a) $6\,120 - 3\,249 = 2\,871$ c) $8\,105 - 5\,258 = 2\,847$
b) $7\,432 - 4\,567 = 2\,865$ d) $9\,043 - 6\,398 = 2\,645$

Amahurizo yo gukuramo imibare itarenze 10 000**Nsuzuma ngusuzume iri ku rupapuro rwa 89 mu gitabo cy'umunyeshuri**

- 1) Impunzi zitabonye imfashany: $9\,732 - 7\,986 = 1\,746$
2) Abanyeshuri batiga siyansi: $9\,321 - 5\,867 = 3\,454$
3) Hasigaye ingo: $6\,830 - 5\,987 = 843$

Reka nisuzume iri ku rupapuro rwa 89 mu gitabo cy'umunyeshuri.

- 1) Yasigaranye amashu: $7\,120 - 6\,987 = 133$
2) Abana bakingiwe inkingo zose: $9\,123 - 879 = 8\,244$
3) Abataratowe: $7\,345 - 789 = 6\,556$
4) Ingemwe z'ibiti zitameze: $9\,351 - 7\,984 = 1\,367$

Ibisubizo by'imyitozo iri ku rupapuro rwa 90 mu gitabo cy'umunyeshuri

- 1) a) $5\,674 + 3\,789 = 9\,463$ d) $6\,987 + 1\,979 = 8\,966$
b) $5\,674 + 4\,098 = 9\,772$ e) $7\,486 + 1\,947 = 9\,433$
c) $6\,987 + 2\,678 = 9\,665$ f) $7\,486 + 1\,287 = 8\,773$
2) a) $5\,674 - 3\,789 = 1\,885$ d) $6\,987 - 2\,678 = 4\,309$
b) $5\,674 - 4\,098 = 1\,576$ e) $6\,987 - 1\,979 = 5\,008$
c) $4\,098 - 3\,789 = 3\,09$ f) $2\,678 - 1\,979 = 699$

3.9.7 Ikigwa cya karindwi: Gukuba imibare igikubo kitarenze 10 000 (Amasomo 4)**a. Intego*****Ubumenyi***

Gusobanukirwa uko bakuba umubare w'imibarwa itatu n'undi w'imibarwa 2 igikubo ntikirenge 10 000.

Ubumenyigiro

Gukuba umubare w'imibarwa itatu n'undi w'imibarwa 2 igikubo ntikirenge 10 000 no kubikoresha mu buzima busanzwe.

Ubukeshya

Gutekerezwa neza kandi vuba.

Kwigirira ikizere no gukora cyane.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gukuba imibare y'imibarwa 2 n'umubare w'umubarwa 1 igikubo cyayo kitarenga 5 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara
- Ibibarisho n'amakarita y'imibare ari mu mabara atandukanye

d. Ibikorwa by'imyigire n'imyigishirize

Imyigire n'imyigishirize yo gukuba imibare ihuye n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko:

- Bakuba umubare w'imibarwa itatu n'undi w'imibarwa 2 n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo n'amahurizo biri ku rupapuro rwa 90 mu gitabo cy'umunyeshuri yo gukuba umubare w'imibarwa itatu n'undi w'imibarwa 2.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Ikuba ry'umubare w'imibarwa 3 n'undi w'imibarwa 2 igikubo kitarenga 10 000

Ibisubizo by'igikorwa kiri ku rupapuro rwa 91 mu gitabo cy'umunyeshuri

a) 295	b) 198	c) 356	d) 139	e) 108
$\times 15$	$\times 19$	$\times 12$	$\times 34$	$\times 45$
4 425	3 762	4 272	4 726	4 860

Nsuzuma ngusuzume iri ku rupapuro rwa 92 mu gitabo cy'umunyeshuri

- | | | |
|-----------------------------|-----------------------------|---------------------------|
| a) $378 \times 25 = 9\,450$ | d) $439 \times 21 = 9\,219$ | f) $907 \times 11 = 9977$ |
| b) $529 \times 18 = 9\,522$ | e) $297 \times 29 = 8\,613$ | g) $412 \times 24 = 9888$ |
| c) $638 \times 15 = 9\,570$ | | |

Reka nisuzume iri ku rupapuro rwa 92 mu gitabo cy'umunyeshuri.

a) 789	b) 697	c) 874	d) 527	e) 472
$\times 12$	$\times 13$	$\times 11$	$\times 15$	$\times 16$
9 468	9 061	9 614	7 905	7 552

**Amahurizo yo gukuba umubare w'imibarwa 3 n'undi w'imibarwa 2
igikubo kitarenga 10 000**

Nsuzuma ngusuzume iri ku rupapuro rwa 93 – 94 mu gitabo cy'umunyeshuri.

- 1) Leta yatanze inka: $416 \times 23 = 9\,568$
- 2) Hajyamo abantu: $798 \times 12 = 9\,576$
- 3) Hashyizwemo abanyeshuri: $287 \times 29 = 8\,323$
- 4) Bacuruza ihene: $479 \times 18 = 8\,622$

Reka nisuzume iri ku rupapuro rwa 94 mu gitabo cy'umunyeshuri

- 1) Ishyirahamwe ribona amagi : $278 \times 29 = 7\,784$
- 2) Mu minsi 27 uruganda rukora amakarito: $367 \times 27 = 9\,909$
- 3) Yahinze amashu: $549 \times 18 = 9\,882$
- 4) Harimo abacuruzi: $589 \times 15 = 8\,835$

Ikuba ry' imibare na 100 na 1000 igikubo kitarenga 10 000

Igikorwa cya 2 ku rupapuro rwa 95 mu gitabo cy'umunyeshuri

- | | |
|-------------------------------|-------------------------------|
| 1) $8 \times 1\,000 = 8\,000$ | 3) $67 \times 100 = 6\,700$ |
| 2) $9 \times 1\,000 = 9\,000$ | 4) $5 \times 1\,000 = 5\,000$ |

Reka nisuzume iri ku rupapuro rwa 95 mu gitabo cy'umunyeshuri

- | | | |
|-------------------------------|-------------------------------|-------------------------------|
| a) $99 \times 100 = 9\,900$ | c) $6 \times 1\,000 = 6\,000$ | e) $57 \times 100 = 5\,700$ |
| b) $7 \times 1\,000 = 7\,000$ | d) $78 \times 100 = 7\,800$ | f) $9 \times 1\,000 = 9\,000$ |

Imyitozo iri ku rupapuro rwa 96 mu gitabo cy'umunyeshuri.

- | | | |
|-------------------------------|--------------------------------|-------------------------------|
| a) $1\,000 \times 3 = 3\,000$ | d) $87 \times 100 = 8\,700$ | g) $6 \times 1\,000 = 6\,000$ |
| b) $69 \times 100 = 6\,900$ | e) $1\,000 \times 7 = 7\,000$ | h) $5 \times 1\,000 = 5\,000$ |
| c) $8 \times 1\,000 = 8\,000$ | f) $76 \times 1\,000 = 7\,600$ | |

**3.9.8 Ikigwa cya munani: Kugabanya imibare itarenze
10 000 (Amasomo 3)**

a. Intego

Ubumenyi

Gusobanukirwa uko bagabanya umubare w'imibarwa ine n'umubare w'umubarwa 1 imibare itarenze 10 000.

Ubumenyigiro

Kugabanya umubare w'imibarwa ine n'umubare w'umubarwa 1 imibare itarenze 10 000.

Ubukeshya

- Gutekerezanya neza kandi vuba
- Kwigirira ikizere no gukora cyane.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo kugabanya imibare itarenze 10 000 iri mu gitabo cy'umunyeshuri.
- Gushushanya imbonerahamwe y'ibara ku kibaho no guha abanyeshuri amakarita y'imibare baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Imbonerahamwe y'ibara
- Ibibarisho n'amakarita y'imibare ari mu mabara atandukanye

d. Ibikorwa by'imyigire n'imyigishirize

Imyigire n'imyigishirize yo kugabanya imibare ihuye n'iyagaragajwe mu kigwa kiri mu mutwe wa mbere.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko:

- Bagabanya imibare itarenze 10 000 n'amategako bakurikiza.
- Bakora amahurizo arimo kugabanya umubare w'imibarwa ine n'undi w'umubarwa 1.

f. Isuzuma

Guha abanyeshuri imyitozo n'amahurizo biri mu gitabo cy'umunyeshuri yo kugabanya imibare itarenze 10 000.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Igabanya ridasangura ry'umubare w'imibarwa 4 n'umubare w'umubarwa 1

Igikorwa kiri ku rupapuro rwa 96 mu gitabo cy'umunyeshuri

- 1) $7\,496 : 8 = 937$ 2) $6\,327 : 9 = 903$ 3) $7\,049 : 7 = 1\,007$

Nsuzuma ngusuzume cya 3 kiri kurupapuro rwa 97 mu gitabo cy'umunyeshuri.

- a) $8\,984 : 8 = 1\,123$ d) $8\,172 : 9 = 908$ f) $8\,491 : 7 = 1\,213$
b) $6\,576 : 4 = 1\,644$ e) $7\,985 : 5 = 1\,597$ g) $9\,879 : 3 = 3\,293$
c) $8\,952 : 6 = 1\,492$

Reka nisuzume iri ku rupapuro rwa 97 mu gitabo cy'umunyeshuri

- a) $9\,549 : 9 = 1\,061$ c) $7\,952 : 7 = 1\,136$ e) $6\,585 : 5 = 1\,317$
b) $8\,728 : 8 = 1\,091$ d) $6\,906 : 6 = 1\,151$ f) $8\,976 : 4 = 2\,244$

Ibisubizo by'imyitozo iri ku rupapuro rwa 98 mu gitabo cy'umunyeshuri

- a) $9\,878 : 2 = 4\,939$ c) $5\,392 : 4 = 1\,348$ e) $7\,656 : 6 = 1\,276$
b) $7\,839 : 3 = 2\,613$ d) $8\,965 : 5 = 1\,793$ f) $6\,398 : 7 = 914$

Amahurizo yo kugabanya

Nsuzuma ngusuzume iri ku rupapuro rwa 98 mu gitabo cy'umunyeshuri

- 1) Buri Karere kagabiwe inka $\longrightarrow 9\,891 : 7 = 1\,413$
- 2) Buri biro byahawe impapuro $\longrightarrow 7\,992 : 8 = 999$
- 3) Buri gikarito kizajyamo amakayi $\longrightarrow 5\,490 : 9 = 610$
- 4) Buri nzu izajyaho amatafari $\longrightarrow 9\,896 : 4 = 2474$

Reka nisuzume iri ku rupapuro rwa 99 mu gitabo cy'umunyeshuri

- 1) Buri modoka yapakiwe inanasi: $5\,496 : 8 = 687$
- 2) Buri kigo cyoherejweho abana: $7\,895 : 5 = 1\,579$
- 3) Buri Karere kazabona imifuka: $8\,793 : 9 = 977$
- 4) Buri Karere kazabona: mudasobwa: $6\,797 : 7 = 971$

3.10 Gusozwa umutwe

a. Inshamake y'ibikubiye muri uyu mutwe

- Kubara, gusoma, kwandika, gutondeka no kugereranya neza imibare ishyitse kuva kuri 0 kugera kuri 10 000, gusesengura no gukoresha neza kandi byihuse amategeko y'ibara (+, -, ×, :) mu mibare ishyitse.
- Gutandukanya imibare y'igiharwe n'imibare itari igiharwe.

b. Ubumenyi bw'inyongera umwarimu asabwa kugira

- Kumenya kuyobora ibikorwa byose kandi yita kuri buri munyeshuri nta we asize inyuma.
- Gusobanura ku buryo bwimbitse uko basoma n'uko bandika imibare yose mu magambo no mu mibare;
- Gutegura no gukoresha neza imfashanyigisho zinyuranye;
- Kumenya uko yacengeza ingingo nsanganyamasomo igihe yigisha Imibare;
- Kumenya neza imyigishirize y'Imibare ijyanye n'integanyanyigisho ishingiyeye ku bushobozi.

c. Ibisubizo by'isuzuma risoza umutwe wa 3 riri ku rupapuro rwa 100 mu gitabo cy'umunyeshuri

- 1) a) Ibihumbi ikenda magana atandatu na mirongo irindwi n'umunani.
b) 7 995
- 2) a) 7 698 b) 8 345
- 3) 5 968
- 4) a) Ibinyagihumbi b) Ibinyabumwe c) Ibinyajana d) Ibinyacumi
- 5) a) $8\,189 < 8\,819$ c) $7\,689 = 7\,689$
b) $6\,583 > 6\,538$ d) $9\,587 > 9\,578$
- 6) 4 784; 5 746; 6 479; 7 356; 7 365; 8 497

7) 9 786; 8 710; 6 827; 6 718; 5 708; 4 738

8) a) $6\,574 + 2\,695 = 9\,269$

b) $7\,865 + 1\,879 = 9\,744$

c) $5\,679 + 4\,320 = 9\,999$

d) $6\,958 + 2\,794 = 9\,752$

9) a) $7\,856 - 5\,976 = 1\,880$

b) $8\,761 - 6\,819 = 1\,942$

c) $9\,852 - 8\,974 = 878$

d) $6\,265 - 5\,987 = 278$

10) a) 198

b) 265

c) 349

d) 573

e) 497

$\times 49$

9 702

$\times 37$

9 805

$\times 28$

9 772

$\times 16$

9 168

$\times 17$

8 449

11) a) $7\,985 : 5 = 1\,597$

b) $8\,526 : 6 = 1\,421$

12) Afite imifuka: $8\,759 - 5\,784 = 2\,975$

13) Hasigayemo ibitabo: $9\,68 - 378 = 590$

14) Atwara imifuka: $300 \times 24 = 7\,200$

15) Buri gitebo kizajyamo imyembe $\longrightarrow 981 : 9 = 109$

d. Imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire n'ibisubizo byayo

1) Andika mu mibare cyangwa mu magambo

a) Ibihumbi bitandatu magana atanu mirongo ine na kabiri.

b) 7415:

2) Shaka umubare wasesenguwe

a) $8\,000 + 500 + 30 =$

b) $(1\,000 \times 7) + (100 \times 4) + (10 \times 3) + (1 \times 5) =$

3) Gereranya ukoresheje $<, >$ cyangwa $=$

a) $6\,450 \dots 6\,780$

b) $9\,678 \dots 9\,678$

c) $8\,960 \dots 7\,890$

4) Tondeka uhareye ku mubare muto ujya ku mubare munini

$8\,645, 6\,987, 7\,000, 5\,930 \longrightarrow$

5) Tondeka uhareye ku mubare munini ujya ku mubare muto

$5\,950, 9\,230, 4\,599, 7\,314 \longrightarrow$

6) Kora

a) $6\,254 + 2\,173 =$

c) $2\,341 \times 4 =$

b) $5\,453 - 3\,412 =$

d) $9\,183 : 3 =$

7) Kora aya mahurizo:

a) MUGISHA yabaruye abaturage 1 250 bakora umwuga w'ubuhinzi mu kagari kabo n'abandi bakora ubukorikori 1 045. Yabaruye abaturage bangahe bose hamwe?

b) UWIZEYE yejeje amacunga 6 700, baje kumugurira batwaraho amacunga 5 670. Ubwo yasigaranye amacunga angahe?

- c) Mu bukwe bwa Meya bicaje abantu ku bihande 3. Buri gihande kijyamo intebe 450. Niba izo ntebe barazicayeho zikarangira, ubwo haje abantu bangahe bose hamwe?
- d) Gabanya ku buryo bungana inanasi 6 318 abacuruzi 9. Buri wese uzamuha inanasi zingahe?

e. Ibisubizo by'imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire n'ibisubizo byayo

- 1) a) 6 542 b) Ibihumbi birindwi magana ane na cumi na gatanu
 2) a) 8 530 b) 7 435
 3) a) $6\,450 < 6\,780$ b) $9\,678 = 9\,678$ c) $8\,960 > 7\,890$
 4) 5 930, 6 987, 7 000, 8 645
 5) 4 599, 5 950, 7 314, 9 230
 6) a) 8 427 b) 2 041 c) 9 364 d) 3 061
 7) a) Igisubizo: $1250 + 1045 = 2295$
 b) Amacunga $6700 - 5670 = 1030$
 c) Haje abantu $450 \times 3 = 1350$
 d) Buri wese azatwara inanasi $6\,318 : 9 = 702$

f. Imyitozo y'umwihariko ihabwa abanyeshuri bihuta cyane mu myigire kurusha abandi n'ibisubizo byayo

1. Andika mu mibare cyangwa mu magambo
 a) 9 784: b) 8 743:
 c) Ibihumbi umunani magana ane mirongo itanu na rimwe:
 d) Ibihumbi birindwi magana atandatu mirongo inani n'ikenda :
 2. Shaka umubare wasesenguwe
 a) $j\,9\,c\,8\,h\,7\,b\,6 =$ b) $c\,1\,j\,7\,b\,5\,h\,9 =$ c) $b\,8\,h\,7\,c\,5\,j\,6 =$
 3. Koresha $<, >$ cyangwa $=$ ugereranye iyi mibare
 a) $j\,8\,c\,9\,h\,6\,b\,4 \dots b\,7\,h\,3\,c\,5\,j\,2$ b) $c\,7\,j\,9\,b\,5\,h\,6 \dots j\,8\,c\,6\,h\,7\,b\,5$
 c) $j\,7\,c\,9\,h\,8\,b\,3 \dots b\,5\,h\,7\,c\,8\,j\,6$
 4. Tondeka uhareye ku mubare muto ujya ku mubare munini
 8 798, 7 685, 6 975, 9 789, 7 897, 5 987 $\longrightarrow$
 5. Tondeka uhareye ku mubare munini ujya ku mubare muto
 9 784, 8 651, 8 756, 7 432, 6 053, 9 874 $\longrightarrow$
 6. Kora iyi myitozo:
 a) $8\,581 + 1\,397 =$ b) $6\,742 - 3\,197 =$ c) $745 \times 9 =$ d) $7\,795 : 5 =$
 7. Kora aya mahurizo:
 a) Mu giterane haje abakristu 3 680 b'abagabo; 4 157 b'abagore n'abana 354. Ubwo haje abantu bangahe bose hamwe?

- b) SUGIRA yaranguye amafi 7 000, acuruzaho 5 678 , afatamo andi 735 ayaha mugenzi we wari ufite ubukwe, na we afataho andi 213 ayakoresha umunsi mukuru. Ubwo yasigaranye amafi angahe ?
- c) Mu bitaro bikuru hari inzu 8 zijyamo ibitanda 375 imwe imwe n'izindi 4 zijyamo ibitanda 215 imwe imwe. Muri izo nzu zose harimo ibitanda bingahe?
- d) Gabanya ku buryo bungana inzitiramibu 6 250 imidugudu 5.
- 1) Buri mudugudu uzatwara inzitiramibu zingahe ?
 - 2) Niba buri rugo ruzafata inzitiramibu 10 ubwo buri mudugudu ufite ingo zingahe ?

g. Ibisubizo by'nyitozo y'umwihariko ihabwa abanyeshuri bihuta cyane mu myigire kurusha abandi n'ibisubizo byayo

- 1) a) Ibihumbi ikenda magana arindwi mirongo inani na kane.
b) Ibihumbi umunani magana arindwi mirongo ine na gatatu.
c) 8 451 d) 7 689
- 2) a) 7 986 b) 9 715 c) 7 658
- 3) a) $6\,894 > 3\,257$ b) $6\,975 < 7\,865$ c) $8\,793 > 685$
- 4) 5 987, 6 975, 7 897, 8 685, 8 798, 9 789
- 5) 9 874, 9 784, 8 756, 8 651, 7 432, 6 053
- 6) a) 9 978 b) 3 545 c) 6 705 d) 1 559
- 7) a) Haje abantu $\longrightarrow 3\,680 + 4\,157 + 354 = 8\,191$
b) Asigaranye amafi $\longrightarrow 7\,000 - 5\,678 - 735 = 587 - 213 = 377$
c) Harimo ibitanda $\longrightarrow (375 \times 8) + (215 \times 4) = (3\,000 + 860) = 3\,860$
d) Buri mudugudu uzahabwa inzitiramibu $\longrightarrow 6\,250 : 5 = 1\,250$
Buri mudugudu ufite ingo $\longrightarrow 1\,250 : 10 = 125$

Umutwe wa 4: Imigabane ifite ikita kitarenze 10

4.1 Ubushobozi bw'ingenzi bugamijwe

Gukora ibibazo by'imibare bifitanye isano no gusoma, kwandika, gushushanya, guteranya, gukuramo imigabane ihuje ikita kitarenga 10 no gukuba imigabane n'umubare ushyitse.

4.2 Ibyizwe mbere bifitanye isano n'uyu mutwe

Gusoma, kwandika no gushushanya $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$

4.3 Ubumemnyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho

- **Uburezi budaheza** bugaragara mu guha abanyeshuri bose amahirwe angana yo kwiga.
- **Gufata neza ibidukikije** bugaragara igihe abanyeshuri birinda kwangiza ibidukikije bashaka imfashanyigisho.
- **Umuco wo gukoresha neza umutungo** ugaragara mu myitozo isaba abanyeshuri gucunga neza imfashanyigisho no gukora gahunda y'ibikorwa birinda gusesagura.
- **Umuco w'amahoro** ugaragara mu bikorwa byo mu matsinda aho umunyeshuri akorana na bagenzi be mu bwumvikane ntawe abangamiye kandi yiga imigabane igizwe n'ibice bingana.

4.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe

- **Gushyikirana n'abandi** igihe akorera mu matsinda cyangwa afatanye n'abandi.
- **Gukoresha imvugo isobanutse** igihe asoma imigabane.
- **Guhanga udushya** akora udukarita twanditseho imigabane.
- **Kwikemurira ibibazo** mu gihe akoresha imibare neza mu buzima busanzwe.
- **Kugira amashyushyu**, yo guhora yiyungura ubumenyi mu ku migabane. isanzwe mu buzima.

4.5 Amagambo umunyeshuri yunguka muri uyu mutwe

Ikibara: Umubare w'umugabane uri hejuru y'umurongo, werekana umubare wafashwe mu bice bingana byagabanijwe mu kizima.

Ikita: Umubare uri muni y'umurongo w'umugabane, ugaragaza ibice bingana byaciye mu kizima.

Umurongo w'umugabane: Umurongo utandukanya ikita n'ikibara.

Ikizima: Ikintu cyuzuye bataracamo ibice gihwanye n'umugabane wuzuye (Iyo ikibara n'ikita bingana).

4.6 Uburyo bwo gusesengura ikibazo nyamukuru

Umwari mu asomesha agakuru kajyanye n'ikibazo cy'umubyeyi utabasha kugabanya abana be ibikoresho ku buryo bungana.

- Asaba abanyeshuri kukaganiraho no kugatangaho ibitekerezo bagaragaza icyo uwo mubyeyi akeneye kumenya kugira ngo age akora imibare ye neza.
- Abasobanurira ko ibisubizo nyabyo bazajya babibona mu masomo bagiye kwiga muri uyu mutwe.

4.7 Uko umwarimu yita by'umwihariko ku bafite ibibazo byihariye yigisha uyu mutwe

- Abafata bitinze bategurire imyitozo usanga mu gitabo cy'umwarimu; yoroshye ugereranyije n'iy'abandi .
- Abafite ubumuga bw'ingingo banza umenye izo ari zo ubategurire imfashanyigisho zihariye n'imyitozo wagenera buri wese.
- Abafite impano yo kumva no gukora vuba cyane bahe imyitozo usanga mu gitabo cy'umwarimu, ituma batarangaza abandi .

4.8 Ibyigwa biri muri uyu mutwe wa 4

	Urutonde rw'ibigwa	Umubare w'amasomo:12
1	Gusoma no kwandika imigabane itarenze ikizima, ikita kitarenze 10	1
2	Gushushanya no gusiga amabara imigabane itandukanye itarenga ikizima	1
3	Kugereranya imigabane ihuje ikita kitarenga 10 kandi itarenga ikizima	1
4	Gushaka icyuzuzo cy'umugabane kugira ngo haboneke ikizima 1	1
5	Iteranya ry'imigabane ihuje ikita kitarenze 10 kandi itarenze ikizima	1
6	Ikuramo ry'imigabane ihuje ikita kitarenze 10 kandi itarenze ikizima	1
7	Umugabane w'umubare ushyitse	2
8	Amahurizo ku migabane ihuje ikita kitarenga 10	2
9	Isuzuma risoza umutwe	2

4.9 Imyigishirize ya buri kigwa

4.9.1 Ikigwa cya mbere: Gusoma no kwandika imigabane itarenze ikizima kandi ikita kitarenze 10 (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa imvugo yumvikana ikoresheya igihe asoma imigabane itarenze ikizima kandi ikita kitarenze 10

Ubumenyigiro

- Kugabanya ikizima mu ibice binyuranye kandi bingana.
- Kwerekana ibice bigize umugabane runaka mu kizima kimwe.
- Kwandika no gusoma imigabane itarenze ikizima kandi ikita kitarenze 10.

Ubukeshya

- Gukoresheya ukuri mu igabana ry'ibintu bitandukanye.
- Kugaragaza umuco wo gusangira n'abandi.
- Kugira umuco w'ubutabera.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gusoma no kwandika imigabane itarenze ikizima kandi ikita kitarenze 10 iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri imfashanyigisho zihagije bari bukatemo imigabane itarenze ikizima kandi ikita kitarenze 10.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoresheya binyuranye byo kugabanyamo imigabane nk'igishyamba, icunga, uduti, isabune, ibipapuro,...
- Ibishushanyo biriho imigabane mu mabara atandukanye, udupapuro dukasemo tugaragaza imigabane.

d. Ibikorwa by'imyigire n'imyigishirize

- Guhereza abanyeshuri amakarita y'imigabane ifite ikita kitarenze 10 maze buri wese agasoma umugabane uri ku ikarita yahawe ndetse akanawandika mu magambo mu ikayi ye y'imyitozo.
- Gushyira abanyeshuri mu matsinda maze ukabaha udupapuro bakatwandikaho imigabane ifite ikita kitarenze 10 bashakira nyuma bakayisoma ndetse bakanayandika mu magambo.
- Gushyira amakarita y'imigabane ifite ikita kitarenze 10 mu gakarito maze buri umunyeshuri akajya gutombora ikarita iriho umugabane yamara gutombora akawusoma ndetse akanawandika mu magambo ku kibaho.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko basoma kandi bandika imigabane n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 105 na 106 mu gitabo cy'umunyeshuri yo gusoma no kwandika imigabane itarenze ikizima kandi ikita kitarenze 10.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gusoma no kwandika imigabane itarenze ikizima kandi ikita kitarenze 10

Nsuzuma ngusuzume iri ku rupapuro rwa 103 mu gitabo cy'umunyeshuri.

- a) $\frac{1}{2}$ b) $\frac{2}{8}$ c) $\frac{2}{4}$

Ibisubizo by'imyitozo iri ku rupapuro rwa 103 mu gitabo cy'umunyeshuri

- 1) a) $\frac{2}{10}$ b) $\frac{4}{10}$ c) $\frac{1}{10}$ d) $\frac{3}{10}$
2) a) $\frac{3}{9}$ c) $\frac{1}{9}$ e) $\frac{4}{9}$ g) $\frac{3}{9}$ i) $\frac{5}{9}$
b) $\frac{6}{9}$ d) $\frac{2}{9}$ f) $\frac{2}{9}$ h) $\frac{2}{9}$

4.9.2 Ikigwa cya kabiri: Gushushanya no gusiga amabara imigabane itarenze ikizima kandi ikita kitarenze 10 (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa imigabane igize ikizima.

Ubumenyingiro

Gushushanya no gusiga amabara imigabane itandukanye itarenga ikizima.

Ubukeshya

- Gukoresha ukuri mu kugabanya aringaniza.
- Kugira umuco wo gusangira n'abandi atikunda.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gusoma kwandika no gushushanya imigabane itarenze ikizima kandi ikita kitarenze 10 iri mu gitabo cy'umunyeshuri
- Guha abanyeshuri imfashanyigisho baza gukoresha
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo

c. Imfashanyigisho

- Ibikoresheho binyuranye byo kugabanyamo imigabane nk'igisheke, icunga, uduti, isabune, ibipapuro,...
- Ibishushanyo biriho imigabane mu mabara atandukanye.

d. Ibikorwa by'imyigire n'imyigishirize

- Guha abanyeshuri urugero rw'uburyo washushanya ndetse ukanasiga amabara imigabane itarenze ikizima kandi ikita kitarenze 10.
- Guha abanyeshuri babiribabiri umwitozo wo gushushanya no gusiga amabara imigabane itarenze ikizima kandi ikita kitarenze 10.
- Gushyira abanyeshuri mu matsinda bagakora umwitozo wo kwandika mu mibare no mu magambo imigabane yashushanyijwe.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bashushanya umugabane bakurikije ibice byaciye mu kizima n'uko bawugaragaza basigamo ibara.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro 105 na 106 mu gitabo cy'umunyeshuri yo gushushanya no gusiga amabara imigabane itandukanye itarenga ikizima kandi ikita kitarenga 10.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gushushanya no gusiga amabara imigabane itarenze ikizima ikita kitarenze 10

Imyitozo iri ku rupapuro rwa 105 mu gitabo cy'umunyeshuri

1) a) 

$\frac{4}{5}$: Bine bya gatanu

b) 

$\frac{2}{3}$: Bibiri bya gatatu

c) 

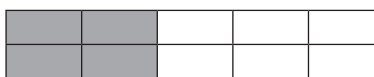
$\frac{3}{8}$: Bitatu by'umunani

d) 

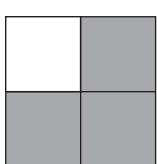
$\frac{7}{9}$: Birindwi by'ikenda

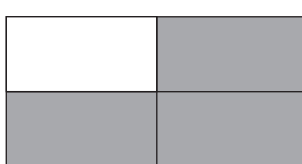
e) 

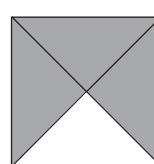
$\frac{6}{7}$: Bitandatu bya karindwi

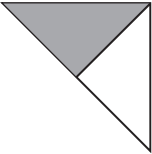
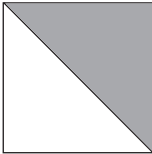
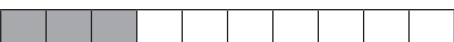
f) 

$\frac{4}{10}$: Bine by'icumi

2) a) 

b) 

c) 

- 3) a)  b)  c) 
- 4) a) $\frac{1}{2}$: Kimwe cya kabiri b) $\frac{3}{8}$: Bitatu by'umunani c) $\frac{4}{4}$: Bine bya kane
- 5) a)  : $\frac{9}{10}$
- b)  : $\frac{7}{8}$
- c)  : $\frac{7}{9}$
- d)  : $\frac{3}{10}$
- e)  : $\frac{7}{10}$
- f)  : $\frac{5}{8}$

4.9.3 Ikigwa cya gatatu: Kugereranya imigabane ihuje ikita kitarenga 10 kandi itarenga ikizima (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko bagereranya imigabane ihuje ikita ahereye ku bishushanyo.

Ubumenyingiro

Kugereranya imigabane ihuje ikita kitarenga 10.

Ubukeshya

Gukoresha ukuri mu kugabanya aringaniza.

Kugira umuco wo gusangira n'abandi atikunda.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo kugereranya imigabane ihuje ikita kitarenga 10 kandi itarenga ikizima iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri imfashanyigisho bari bukoreshye.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoresho binyuranye byo kugabanyamo imigabane nk'igisheke, icunga, uduti, isabune, ibipapuro, ...
- Ibishushanyo biriho imigabane mu mabara atandukanye.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusobanurira abanyeshuri uko bagereranya imigabane ihuje ikita kitarenga 10 kandi itarenze ikizima kimwe, ko bagereranya gusa ibibara maze bagashyiramo ikimenyetso bihitiyemo hagati ya $<$, $>$ na $=$
- Guha abanyeshuri amakarita yanditseho imigabane ihuje ikita kitarenga 10 kandi itarenze ikizima 1 n'andi yanditseho ibimenyetso by'igereranya ($<$, $>$ na $=$) bakajya bafata imigabane ibiri bihitiyemo bakayigereranya bakoresheje bya bimenyetso by'igereranya.

e. Ikomatanya ry'ibyzwe

Kuyobora abanyeshuri mu kuvuga muri make uko bagereranya imigabane ihuje ikita kitarenga 10 kandi itarenga ikizima n'amategako bakurikiza.

f. Isuzuma

Guha abanyeshuri nsuzuma ngusuzume iri ku rupapuro rwa 107 mu gitabo cy'umunyeshuri yo kugereranya imigabane ihuje ikita kitarenga 10 kandi itarenga ikizima ...

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Kugereranya imigabane ihuje ikita kitarenze 10 kandi itarenze ikizima kimwe

Igikorwa cya 2 kiri ku rupapuro rwa 106 mu gitabo cy'umunyeshuri

- a) $\frac{3}{8} > \frac{1}{8}$ c) $\frac{1}{2} = \frac{1}{2}$ e) $\frac{4}{6} < \frac{5}{6}$
b) $\frac{5}{9} > \frac{2}{9}$ d) $\frac{5}{5} = \frac{5}{5}$ f) $\frac{1}{4} < \frac{4}{4}$

Nsuzuma ngusuzume ku rupapuro rwa 107 mu gitabo cy'umunyeshuri.

- a) $\frac{1}{3} < \frac{2}{3}$ b) $\frac{1}{4} < \frac{3}{4}$ c) $\frac{4}{5} > \frac{2}{5}$ d) $\frac{2}{5} < \frac{3}{5}$
e) $\frac{4}{7} > \frac{1}{7}$ f) $\frac{5}{6} = \frac{5}{6}$ g) $\frac{1}{6} < \frac{4}{6}$ h) $\frac{1}{10} < \frac{7}{10}$ i) $\frac{7}{9} < \frac{8}{9}$

Gutondeka imigabane ihuje ikita kitarenze 10 kandi itarenze ikizima kimwe.

Gutondeka imigabane ihuje ikita kitarenze 10 kandi itarenze ikizima uhaye ku muto ujya ku munini.

Imyitozo iri ku rupapuro rwa 107 mu gitabo cy'umunyeshuri

- a) $\frac{1}{10}, \frac{2}{10}, \frac{3}{10}, \frac{5}{10}, \frac{6}{10}$ b) $\frac{1}{9}, \frac{2}{9}, \frac{3}{9}, \frac{4}{9}, \frac{5}{9}, \frac{6}{9}$
c) $\frac{1}{8}, \frac{2}{8}, \frac{3}{8}, \frac{5}{8}, \frac{6}{8}$ d) $\frac{4}{10}, \frac{7}{10}, \frac{8}{10}, \frac{9}{10}$

Gutondeka imigabane ihuje ikita kitarenze 10 kandi itarenze ikizima uhereye ku munini ujya muto.

Reka nisuzume iri ku rupapuro rwa 108 mu gitabo cy’umunyeshuri

- a) $\frac{6}{6}, \frac{5}{6}, \frac{4}{6}, \frac{3}{6}, \frac{2}{6}, \frac{1}{6}$ b) $\frac{5}{5}, \frac{4}{5}, \frac{3}{5}, \frac{2}{5}, \frac{1}{5}$
 c) $\frac{4}{4}, \frac{3}{4}, \frac{2}{4}, \frac{1}{4}$ d) $\frac{3}{3}, \frac{2}{3}, \frac{1}{3}$

Reka nisuzume iri ku rupapuro rwa 108 – 109 mu gitabo cy’umunyeshuri

- 1) a) $\frac{2}{7}, \frac{3}{7}, \frac{4}{7}, \frac{6}{7}, \frac{7}{7}$ b) $\frac{2}{10}, \frac{6}{10}, \frac{8}{10}, \frac{9}{10}, \frac{10}{10}$
 c) $\frac{2}{7}, \frac{3}{7}, \frac{4}{7}, \frac{6}{7}, \frac{7}{7}$ d) $\frac{1}{5}, \frac{2}{5}, \frac{3}{5}, \frac{4}{5}, \frac{5}{5}$
 2) a) $\frac{7}{8}, \frac{6}{8}, \frac{4}{8}, \frac{3}{8}, \frac{2}{8}$ b) $\frac{6}{6}, \frac{5}{6}, \frac{4}{6}, \frac{2}{6}, \frac{1}{6}$
 c) $\frac{4}{4}, \frac{3}{4}, \frac{2}{4}, \frac{1}{4}$ d) $\frac{3}{3}, \frac{2}{3}, \frac{1}{3}$

4.9.4 Ikigwa cya kane: Iteranya ry'imigabane ihuje ikita kitarenze 10 kandi itarenze ikizima (Isomo 1)

a. Intego

Ubumenyi

Gusobanura uko bateranya imigabane ihuje ikita kitarenga 10 kandi itarenga ikizima.

Ubumenyingingiro

Guteranya imigabane ihuje ikita kitarenga 10 kandi itarenga ikizima

Ubukasha

Gukoresha ukuri igabana ry'ibintu bitandukanye no kugaragaza umuco wo gusangira n'abandi.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo guteranya imigabane $\frac{1}{2}$, $\frac{1}{4}$ na $\frac{1}{8}$ iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri amakarita y'imigabane baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoresho binyuranye byo kugabanya mo imigabane nk'igisheke, icunga, uduti, isabune, ibipapuro, ...
- Ibishushanyo biriho imigabane mu mabara atandukanye.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusobanurira abanyeshuri ko iyo uteranya imigabane ihuje ikita kitarenga 10 kandi itarenze ikizima 1 uteranya ibibara gusa hanyuma ukandukura ikita ufite.
- Guha abanyeshuri amakarita y'imigabane ihuje ikita kitarenga 10 kandi itarenze ikizima 1 n'amakarita ariho ibimenyetso byo guteranya bakajya bateranya imigabane yanditseho maze bagahitamo ikarita iriho igiteranyo cyayo.
- Ku mahurizo yo guteranya imigabane ihuje ikita kitarenga 10 kandi itarenze ikizima kimwe, banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanywa ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko:

- Bateranya babitsa cyangwa batabitsa n'amategeko bakurikiza.
- Bakora amahurizo yo guteranya imibare igiteranyo kitarenga 2 000.

f. Isuzuma

Guha abanyeshuri Nsuzuma ngusuzume iri ku rupapuro rwa 109 mu gitabo cy'umunyeshuri yo guteranya imigabane ihuje ikita kitarenze 10 kandi itarenze ikizima.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Iteranya ry'imigabane ihuje ikita kitarenze 10 kandi itarenze ikizima

Igikorwa kiri ku rupapuro rwa 109 mu gitabo cy'umunyeshuri

- a) $\frac{4}{8}$ b) $\frac{9}{9}$ c) $\frac{5}{7}$ d) $\frac{3}{4}$ e) $\frac{4}{8}$ f) $\frac{9}{10}$

Nsuzuma ngusuzume iri ku rupapuro rwa 109 mu gitabo cy'umunyeshuri

- a) $\frac{7}{8}$ b) $\frac{8}{10}$ c) $\frac{9}{9}$ d) $\frac{6}{7}$

Amahurizo yo guteranya imigabane ihuje ikita kitarenga 10

Nsuzuma ngusuzume iri ku rupapuro rwa 109 mu gitabo cy'umunyeshuri

- 1) Amaze gukora: $\frac{3}{5} + \frac{1}{5} = \frac{4}{5}$ 3) Bamaze gusarura: $\frac{2}{6} + \frac{3}{6} = \frac{5}{6}$
2) Inka zose: $\frac{3}{10} + \frac{6}{10} = \frac{9}{10}$ 4) Yacurujye: $\frac{2}{10} + \frac{7}{10} = \frac{9}{10}$

Reka nisuzume iri ku rupapuro rwa 111 mu gitabo cy'umunyeshuri

- 1) Amaze kuboha: $\frac{2}{7} + \frac{3}{7} + \frac{1}{7} = \frac{6}{7}$ 3) Bose basukuye: $\frac{4}{9} + \frac{2}{9} = \frac{6}{9}$
2) Bamaze kurya: $\frac{5}{10} + \frac{3}{10} = \frac{8}{10}$ 4) Amaze kugenda: $\frac{3}{8} + \frac{4}{8} = \frac{7}{8}$

4.9.5 Ikigwa cya gatanu: Ikuramo ry'imigabane ihuje ikita kitarenze 10 kandi itarenze ikizima (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko bakuramo imigabane ihuje ikita.

Ubumenyigiro

Gukuramo imigabane ihuje ikita kitarenga 10.

Ubukasha

Gukoresha ukuri mu kugabanya aringaniza. Kugira umuco wo gusangira n'abandi atikunda.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo guteranya imigabane $\frac{1}{2}$, $\frac{1}{4}$ na $\frac{1}{8}$ iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri amakarita y'imigabane baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

Ibikoresho binyuranye byo kugabanyamo imigabane: igisheke, icunga, uduti, isabune, ibipapuro ...

d. Ibikorwa by'imyigire n'imyigishirize

- Gusobanurira abanyeshuri ko iyo ukuramo imigabane ihuje ikita kitarenga 10 kandi itarenze ikizima 1 ukuramo ibibara gusa hanyuma ukandukura ikita ufite.
- Guha abanyeshuri amakarita y'imigabane ihuje ikita kitarenga 10 kandi itarenze ikizima 1 n'amakarita ariho ibimenyetso byo gukuramo bakajya bakuramo imigabane yanditseho maze bagahitamo ikarita iriho ikinyuranyo cyayo.
- Ku mahurizo yo gukuramo imigabane ihuje ikita kitarenga 10 kandi itarenze ikizima kimwe banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bakuramo imigabane ihuje ikita kitarenga 10 kandi itarenga ikizima n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri Reka nisuzume iri ku rupapuro 112 mu gitabo cy'umunyeshuri yo gukuramo imigabane ihuje ikita kitarenga 10 kandi itarenga ikizima.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Ikuramo ry'imigabane ihuje ikita kitarenze 10 kandi itarenze ikizima

Igikorwa kiri ku rupapuro rwa 112 mu gitabo cy'umunyeshuri

a) $\frac{7}{9} - \frac{4}{9} = \frac{3}{9}$ c) $\frac{5}{6} - \frac{4}{6} = \frac{1}{6}$ e) $\frac{4}{5} - \frac{2}{5} = \frac{2}{5}$

b) $\frac{8}{9} - \frac{7}{9} = \frac{1}{9}$ d) $\frac{5}{8} - \frac{4}{8} = \frac{1}{8}$ f) $\frac{10}{10} - \frac{8}{10} = \frac{2}{10}$

Reka nisuzume iri ku rupapuro rwa 112 mu gitabo cy'umunyeshuri

a) $\frac{9}{10} - \frac{4}{10} - \frac{3}{10} = \frac{2}{10}$ b) $\frac{8}{8} - \frac{1}{8} - \frac{6}{8} = \frac{1}{8}$

c) $\frac{7}{9} - \frac{2}{9} - \frac{3}{9} = \frac{2}{9}$ d) $\frac{6}{7} - \frac{3}{7} - \frac{2}{7} = \frac{1}{7}$

Amahurizo yo gukuramo imigabane ihuje ikita kitarenga 10

Nsuzuma ngusuzume iri ku rupapuro rwa 113 mu gitabo cy'umunyeshuri

1) $\frac{6}{10}$ 2) $\frac{4}{9}$ 3) $\frac{6}{10}$

Reka nisuzume iri ku rupapuro rwa 113 mu gitabo cy'umunyeshuri

1) Ibiti bitameze: $\frac{6}{7} - \frac{3}{7} = \frac{3}{7}$

2) Azasigarana: $\frac{4}{5} - \frac{3}{5} = \frac{1}{5}$ 3) Imyenda itaruma: $\frac{7}{8} - \frac{5}{8} = \frac{2}{8}$

4.9.6 Ikigwa cya gatandatu: Gushaka icyuzuzo cy'umugabane kugira ngo haboneke ikizima 1 (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko bashaka icyuzuzo cy'umugabane kugira ngo haboneke ikizima 1.

Ubumenyigiro

Gushaka icyuzuzo cy'umugabane kugira ngo haboneke ikizima 1.

Ubukeshya

Gutekereza neza kandi vuba.

Gukoresha ukuri mu igabanya ry'ibintu.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo kugaragaza uko wahuza imigabane ngo ubone ikizima iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri imfashanyigisho baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoresho binyuranye byo kugabanyamo imigabane nk'igisheke, icunga, uduti, isabune, ibipapuro, ...
- Ibishushanyo biriho imigabane mu mabara atandukanye.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusobanurira abanyeshuri ko iyo ushaka icyuzuzo cy'umugabane kugira ngo haboneke ikizima, ureba ikita baguhaye ugakora ikizima ni ukuvuga ikibara n'ikita byatanze bingana hanyuma ugakuramo umugabane wahawe.
- Guha abanyeshuri amakarita y'imigabane ihuje ikita kitarenga 10 kandi itarenze ikizima 1 bakajya bafata ikarita imwe iriho umugabane bakayerekana hanyuma bagahitamo imwe mu makarita bahawe yaba icyuzuzo cy'uwo mugabane wanditse kuri iyo karita.
- Gushyira amakarita y'imigabane ifite ikita kitarenga 10 kandi ikizima kitarenze 1 mu gakarito maze buri munyeshuri akajya gutombora ikarita iriho umugabane yamara gutombora akawerekana hanyuma agashaka muri iyo karito undi mugabane waba icyuzuzo cy'uwo yatomboye.

e. Ikomatany ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uburyo bakoresha mu gushaka icyuzuzo cy'umugabane ngo haboneke ikizima 1 n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri Nsuzuma ngusuzume iri ku rupapuro rwa 114 mu gitabo cy'umunyeshuri yo gushaka icyuzuzo cy'umugabane ngo haboneke ikizima 1.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gushaka icyuzuzo cy'umugabane kugira ngo haboneke ikizima

Igikorwa cya 2 kiri ku rupapuro rwa 114 mu gitabo cy'umunyeshuri

- a) $\frac{3}{7}$ b) $\frac{3}{9}$ c) $\frac{2}{5}$ d) $\frac{3}{8}$ e) $\frac{4}{6}$ f) $\frac{2}{5}$
- g) $\frac{5}{6}$ h) $\frac{1}{5}$ i) $\frac{8}{10}$ j) $\frac{1}{3}$ k) $\frac{3}{10}$ l) $\frac{2}{9}$

Nsuzuma ngusuzume iri ku rupapurorwa 114 mu gitabo cy'umunyeshuri

- a) $\frac{4}{7}$ b) $\frac{5}{9}$ c) $\frac{2}{8}$ d) $\frac{9}{10}$

4.9.7 Ikigwa cya karindwi: Umugabane w'umubare ushyitse (Amasomo 2)

a. Intego

Ubumenyi

Gusobanukirwa uko bashaka umugabane w'umubare ushyitse.

Ubumenyigiro

Gukora ibibazo by'imibare n'amahurizo bifitanye isano no gushaka umugabane w'umubare ushyitse.

Ubukeshya

Gukoresha ukuri mu kugabanya aringaniza.

Kugira umuco wo gusangira n'abandi atikunda.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gushaka umugabane w'umubare ushyitse iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri amakarita y'imigabane baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa mu myigire yabo.

c. Imfashanyigisho

- Ibikoresho binyuranye byo kugabanyamo imigabane nk'igisheke, icunga, uduti, isabune, ibipapuro, ...
- Ibishushanyo biriho imigabane mu mabara atandukanye.
- Udupapuro dukasemo tugaragaza imigabane.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusobanurira abanyeshuri ko iyo ushaka agaciro k'umugabane w'umubare ushyitse, ufata uwo mubare ukawukuba n'ikibara maze igikubo cya byombi ukakigabanya n'ikita cy'uwo mugabane.
- Guha abanyeshuri amakarita y'imigabane ihuje ikita kitarenga 10 kandi itarenze ikizima 1 n'amakarita y'imibare wishakiye bakajya bafata ikarita imwe iriho umugabane n'indi iriho umubare bakazerekana hanyuma bagahitamo imwe mu makarita bahawe yaba igisubizo.
- Gushyira amakarita y'imigabane ifite ikita kitarenga 10 kandi ikizima kitarenze 1 mu gakarito n'andi yanditseho imibare maze buri munyeshuri akajya gutombora ikarita iriho umugabane n'indi iriho umubare yamara gutombora akazerekana hanyuma agashaka muri iyo karito undi mubare waba agaciro k'umugabane w'umubare ushyitse yatombeye.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko:

- Bashaka umugabane w'umubare ushyitse n'amategako bakurikiza.
- Bakora amahurizo arimo gushaka umugabane w'umubare ushyitse.

f. Isuzuma

Guha abanyeshuri Nsuzuma ngusuzume n'amahurizo biri ku rupapuro rwa 116 mu gitabo cy'umunyeshuri yo gushaka umugabane w'umubare ushyitse.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Umugabane w'umubare ushyitse

Igikorwa cyo ku rupapuro rwa 115 mu gitabo cy'umunyeshuri

- | | |
|---|---|
| a) $\frac{2}{3}$ bya 45: $\frac{45 \times 2}{3} = 30$ | d) $\frac{5}{8}$ bya 40: $\frac{40 \times 5}{8} = 25$ |
| b) $\frac{4}{5}$ bya 15: $\frac{15 \times 4}{5} = 12$ | e) $\frac{3}{10}$ bya 70: $\frac{70 \times 3}{10} = 21$ |
| c) $\frac{3}{7}$ bya 14: $\frac{14 \times 3}{7} = 6$ | f) $\frac{4}{7}$ bya 35: $\frac{35 \times 4}{7} = 20$ |

Reka nisuzume iri ku rupapuro rwa 115 – 116 mu gitabo cy'umunyeshuri

- | | |
|---|--|
| a) $\frac{1}{2}$ cya 10: $\frac{10 \times 1}{2} = 5$ | d) $\frac{7}{8}$ bya 16: $\frac{16 \times 7}{8} = 14$ |
| b) $\frac{5}{6}$ bya 12: $\frac{12 \times 5}{6} = 10$ | e) $\frac{5}{9}$ bya 9: $\frac{9 \times 5}{9} = 5$ |
| c) $\frac{3}{7}$ bya 14: $\frac{14 \times 3}{7} = 6$ | f) $\frac{7}{10}$ bya 10: $\frac{7 \times 10}{10} = 7$ |

Nsuzuma ngusuzume iri ku rupapuro rwa 116 mu gitabo cy'umunyeshuri

- | | |
|---|---|
| a) $\frac{1}{8}$ cya 64: $\frac{64 \times 1}{8} = 8$ | d) $\frac{1}{10}$ cya 100: $\frac{100 \times 1}{10} = 10$ |
| b) $\frac{5}{9}$ bya 54: $\frac{54 \times 5}{9} = 30$ | e) $\frac{9}{10}$ bya 30: $\frac{30 \times 9}{10} = 27$ |
| c) $\frac{7}{10}$ bya 50: $\frac{50 \times 7}{10} = 35$ | f) $\frac{7}{8}$ bya 56: $\frac{56 \times 7}{8} = 49$ |

4.9.8 Ikigwa cya munani: Amahurizo ku migabane y'umubare ushyitse 10 (Amasomo 2)

a. Intego

Ubumenyi

Gusobanukirwa uko bakora amahurizo yo ku migabane ihuje ikita kitarenga 10.

Ubumenyigiro

Gukora amahurizo yo ku migabane ihuje ikita kitarenga 10.

Ubukasha

Gukoresha ukuri mu kugabanya aringaniza.

Kugira umuco wo gusangira n'abandi atikunda.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo guteranya no gukuramo imibabane ihuje ikita kitarenga 10 iri mu gitabo cy'umunyeshuri
- Guha abanyeshuri amakarita y'imigabane baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo

c. Imfashanyigisho

Ibikoresho binyuranye byo kugabanyamo imigabane: igisheke, icunga, uduti, isabune, ibipapuro.

d. Ibikorwa by'igiyigire n'igiyigishirize

- Ku mahurizo yo ku mugabane w'umubare ushyitse banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanyo ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bakora amahurizo ku migabane y'umubare ushyitse ikita kitarenga 10 n'amategako bakurikiza.

f. Isuzuma

Guha abanyeshuri amahurizo ya Reka nisuzume ku migabane ihuje ikita kitarenga 10 ari ku rupapuro rwa 117 mu gitabo cy'umunyeshuri.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Amahurizo ku mugabane w'umubare ushyitse

Nsuzuma ngusuzume iri ku rupapuro rwa 117 mu gitabo cy'umunyeshuri

- 1) Insina zanyye $\frac{4}{5}$ bya 200: $\frac{200 \times 4}{5} = 160$
- 2) Hazasigara imifuka $\frac{5}{8}$ bya 120: $\frac{120 \times 5}{8} = 75$
- 3) Abantu bafite mudasobwa ni $\frac{2}{5}$ bya 125: $\frac{125 \times 2}{5} = 50$

Reka nisuzume iri ku rupapuro rwa 117 mu gitabo cy'umunyeshuri

- 1) Izisakaje amabati $\frac{5}{6}$ bya 240: $\frac{240 \times 5}{6} = 200$
- 2) Umubare w'abahungu $\frac{2}{3}$ bya 45: $\frac{45 \times 2}{3} = 30$
- 3) Imodoka zikorera mu ntara ni $\frac{4}{7}$ bya 84: $\frac{84 \times 4}{7} = 48$

4.10 Gusoza umutwe

a. Inshamake y'ibikubiye muri uyu mutwe

- Gukora imyitozo y'imibare ifitanye isano no gusoma, kwandika, gushushanya, guteranya no gukuramo imigabane ihuje ikita kitarenga 10.
- Gukuba imigabane n'umubare ushyitse no gukora amahurizo ku migabane ihuje ikita kitarenga 10.

b. Ubumenyi bw'inyongera umwarimu asabwa kugira

- Kumenya kuyobora ibikorwa byose kandi yita kuri buri munyeshuri nta we asize inyuma.
- Gusobanura ku buryo bwimbitse uko bakora ibibazo by'imibare bifitanye isano no gusoma, kwandika, gushushanya, guteranya, gukuramo imigabane ihuje ikita kitarenga 10 no gukuba imigabane n'umubare.
- Gutegura no gukoresha neza imfashanyigisho zinyuranye.
- Kumenya uko yacengeza ingingo nsanganyamasomo igihe yigisha imigabane.
- Kumenya neza imyigishirize y'Imibare ijyanye n'integanyanyigisho ishingiye ku bushobozi.

c. Ibisubizo by'isuzuma risoza umutwe wa 4 riri ku rupapuro rwa 119 mu gitabo cy'umunyeshuri

- 1) a) $\frac{4}{6}$ b) $\frac{8}{10}$
- 4) a) $\frac{5}{7} < \frac{6}{7}$ b) $\frac{4}{6} > \frac{2}{6}$ c) $\frac{5}{9} < \frac{8}{9}$ d) $\frac{3}{4} = \frac{3}{4}$
- e) $\frac{1}{5} < \frac{3}{5}$ f) $\frac{1}{8} < \frac{8}{8}$
- 5) a) $\frac{1}{8}, \frac{2}{8}, \frac{3}{8}, \frac{4}{8}, \frac{5}{8}, \frac{6}{8}, \frac{7}{8}, \frac{8}{8}$
- b) $\frac{1}{5}, \frac{2}{5}, \frac{3}{5}, \frac{4}{5}, \frac{5}{5}$
- 6) a) $\frac{7}{7}, \frac{6}{7}, \frac{4}{7}, \frac{3}{7}, \frac{2}{7}, \frac{1}{7}$
- b) $\frac{5}{6}, \frac{4}{6}, \frac{3}{6}, \frac{2}{6}, \frac{1}{6}$
- 7) a) $\frac{3}{7}$ b) $\frac{5}{8}$ c) $\frac{4}{9}$ d) $\frac{6}{10}$
- 8) a) $\frac{3}{7} + \frac{2}{7} = \frac{5}{7}$ b) $\frac{4}{9} + \frac{2}{9} = \frac{6}{9}$ b) $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$
- 9) a) $\frac{8}{9} - \frac{5}{9} = \frac{3}{9}$ b) $\frac{9}{10} - \frac{3}{10} = \frac{6}{10}$ b) $\frac{6}{7} - \frac{4}{7} = \frac{2}{7}$

10) a) $\frac{3}{4}$ bya 100: $\frac{100 \times 3}{4} = 75$ b) $\frac{7}{8}$ bya 64: $\frac{64 \times 7}{8} = 56$

c) $\frac{5}{6}$ bya 60: $\frac{60 \times 5}{6} = 50$

11) Yariye $\frac{3}{5}$

12) Yasigaranye $\frac{2}{7}$

13) Yasaruye amashu ahwanye na $\frac{5}{6}$ bya 360: $\frac{360 \times 5}{6} = 300$

$\frac{1}{6}$ cya 360: $\frac{360 \times 1}{6} = 60$

15) $\frac{7}{8}$

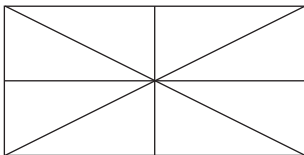
16) a) Abamaze kwishyura ni $\frac{7}{8}$ bya 960: $\frac{960 \times 7}{8} = 840$

a) Abatarishyura ni $960 - 840 = 120$

d. Imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire

1) Andika iyi migabane mu magambo: a) $\frac{1}{4}$ b) $\frac{5}{8}$ c) $\frac{3}{4}$

2) Siga ibara $\frac{3}{8}$ by'iyi shusho:



3) Gereranya ukoresheje $>$, $<$ na $=$

a) $\frac{4}{5} \square \frac{2}{5}$ b) $\frac{3}{7} \square \frac{5}{7}$ c) $\frac{2}{2} \square \frac{3}{3}$ d) $\frac{1}{8} \square \frac{3}{8}$

e) $\frac{7}{9} \square \frac{5}{9}$ f) $\frac{3}{7} \square \frac{6}{7}$ g) $\frac{4}{5} \square \frac{3}{5}$

4) Kora:

a) $\frac{3}{7} + \frac{2}{7} =$ b) $\frac{6}{10} - \frac{3}{10} =$ c) $\frac{8}{9} - \frac{5}{9} =$

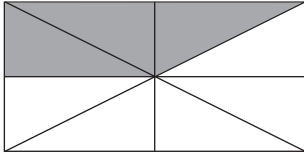
d) $\frac{2}{9} + \frac{4}{9} =$ e) $\frac{2}{3}$ bya 36 = f) $\frac{4}{5}$ bya 45 =

5) Mu ikarito harimo ibitabo 28. Muri byo, $\frac{4}{7}$ byabyo ni Imibare na ho ibindi ni icyongereza. Shaka umubare w'ibitabo by'icyongereza biri muri iyo karito.

Ibisubizo by'Imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire

- 1) a) Kimwe cya kane b) Bitanu by'umunani c) Bitatu bya kane

2)



3) Gereranya ukoresheje $<$, $>$ na $=$

- a) $\frac{4}{5} > \frac{2}{5}$ b) $\frac{3}{7} > \frac{5}{7}$ c) $\frac{2}{2} = \frac{2}{2}$ d) $\frac{1}{8} < \frac{3}{8}$
 e) $\frac{7}{9} > \frac{5}{9}$ f) $\frac{3}{7} < \frac{6}{7}$ g) $\frac{4}{5} > \frac{3}{5}$

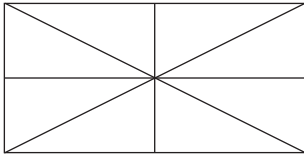
4) Kora: a) $\frac{5}{7}$ b) $\frac{3}{10}$ c) $\frac{3}{9}$ d) $\frac{6}{9}$ e) 24 f) 36

5) Umubare w'ibitabo by'icyongereza biri muri iyo karito $= (28 \times 4) : 7 = 16$

e. Imyitozo y'umwihariko ihabwa abanyeshuri bihuta cyane mu myigire kurusha abandi

1) Andika iyi migabane mu magambo: a) $\frac{7}{9}$ b) $\frac{6}{7}$ c) $\frac{8}{10}$

2) Siga ibara $\frac{7}{8}$ by'iyi shusho:



3) Gereranya ukoresheje $>$, $<$ na $=$

- a) $\frac{9}{10} \square \frac{8}{10}$ b) $\frac{8}{10} \square \frac{9}{10}$ c) $\frac{7}{7} \square \frac{10}{10}$ d) $\frac{9}{9} \square \frac{8}{9}$
 e) $\frac{9}{10} \square \frac{2}{10}$ f) $\frac{6}{7} \square \frac{3}{7}$ g) $\frac{4}{5} \square \frac{3}{5}$

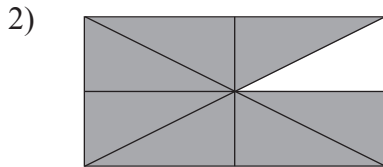
4) Kora:

- a) $\frac{1}{10} + \frac{4}{10} =$ b) $\frac{6}{7} - \frac{3}{7} =$ c) $\frac{7}{8} - \frac{4}{8} =$
 d) $\frac{5}{8} + \frac{1}{8} =$ e) $\frac{4}{7}$ bya 8400=
 f) $\frac{6}{8}$ bya 5600=

5) Abafana 9875 bitabiriye umupira w'amaguru kuri sitade, $\frac{4}{5}$ byabyo bari abagabo naho abandi ari abagore .Shaka umubare w'abagore barebye uwo mupira?

Ibisubizo by'imyitozo y'umwihariko ihabwa abanyeshuri bihuta cyane mu myigire kurusha abandi n'ibisubizo byayo

- 1) a) Birindwi by'ikenda
b) Bitandatu bya karindwi
c) Umunani by'icumi



- 3) Gereranya ukoresheje $<$, $>$ na $=$

a) $\frac{9}{10} > \frac{8}{10}$

b) $\frac{8}{10} < \frac{9}{10}$ c) $\frac{7}{7} = \frac{10}{10}$ d) $\frac{9}{9} > \frac{8}{9}$

e) $\frac{9}{10} > \frac{2}{10}$ f) $\frac{6}{7} > \frac{3}{7}$ g) $\frac{4}{5} > \frac{3}{5}$

- 4) Kora:

a) $\frac{5}{10}$ b) $\frac{3}{7}$ c) $\frac{3}{8}$ d) $\frac{6}{8}$ e) 4 800 f) 4 200

- 5) Umubare w'abagabo: $(9\,875 \times 4) : 5 = 7\,900$

Umubare w'abagore : $9\,875 - 7\,900 = 1\,975$

cyangwa: Abagabo ni $\frac{4}{5}$ bya 9 875: $\frac{9\,875 \times 4}{5} = 7\,900$
Abagore $9\,875 - 7\,900 = 1\,975$

Umutwe wa gatanu: Isano iri hagati y'ingero z'uburebure

5.1 Ubushobozi bw'ingenzi bugamijwe

Gupima no kwerekana isano iri hagati y'ingero z'uburebure, kugereranya, guteranya, gukuramo ingero z'uburebure, gukuba no kugabanya ingero z'uburebure n'umubare ushyitse.

5.2 Ibyizwe mbere bifatanye isano n'uyu mutwe

Ingero z'uburebure **m**, **dm** na **cm**

5.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho

- *Ubwuzuzanye bw'ibitsina byombi* bugaragara igihe abahungu n'abakobwa bafatanye bakora imyitozo n'ibikorwa byo gupima uburebure nta vangura.
- *Uburezi budaheza* bugaragara mu guha abanyeshuri bose amahirwe angana yo kwiga.
- *Gufata neza ibidukikije* bugaragara igihe abanyeshuri bakora ibikorwa byo gupima uburebure nta kintu bangiza.

5.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe

- *Gukoresha imvugo isobanutse* igihe umunyeshuri yandika cyangwa asoma ingero z'uburebure.
- *Gushishoza* mu gihe agererenya ibipimo by'ibintu binyuranye.
- *Kugira amashyushyu* yo guhora yiyungura ubumenyi ku ngero z'uburebure
- *Kwikemurira ibibazo* mu gihe akoresha neza ingero z'uburebure mu buzima busanzwe.

5.5 Amagambo umunyeshuri yunguka muri uyu mutwe

Metero buhine: metero ikunjwa, igahinahinwa

Metero bushumi: metero y'umushumi ikoreshwa mu gupima imyenda

Dekametero: igipimo kingana na metero 10 gipimishwa nko mu mirima no mu bwubatsi.

Urugero fatizo: urugero shingiro rukoreshwa cyane mu gupima uburebure (**m**)

5.6 Uburyo bwo gusesengura ikibazo nyamukuru

- Umwarimu asomesha agakuru kajyanye n'ikibazo cy'umugabo udashobora gusobanura ingano y'ubutaka bwe.
- Asaba abanyeshuri kukaganiraho no kugatangaho ibitekerezo bagaragaza icyakorwa ngo uwo mugabo akemure icyo kibazo.
- Abasobanurira ko ibisubizo nyabyo bazajya babibona mu masomo bagiye kwiga muri uyu mutwe.

5.7 Uko umwarimu yita by'umwihariko ku bafite ibibazo byihariye yigisha uyu mutwe

- Abafata bitinze bategurire imyitozo usanga mu gitabo cy'umwarimu; yoroshye ugereranyije n'iy'abandi.
- Abafite ubumuga bw'ingingobanza umenye izo ari zo ubategurire imfashanyigisho zihariye n'imyitozo wagenera buri wese.
- Abafite impano yo kumva no gukora vuba cyane bahe imyitozo usanga mu gitabo cy'umwarimu, ituma batarangaza abandi.

5.8 Ibyigwa biri muri uyu mutwe wa gatanu

	Ibyigwa	Umubare w'amasomo:12
1	Guhindura ingero z'uburebure	2
2	Kugereranya ingero z'uburebure	2
3	Guteranya ingero z'uburebure	2
4	Gukuramo ingero z'uburebure	2
5	Gukuba ingero z'uburebure n'umubare ushyitse	1
6	Kugabanya ingero z'uburebure n'umubare ushyitse	1
7	Isuzuma risoza umutwe	2

5.9 Imyigishirize ya buri kigwa

5.9.1 Ikigwa cya mbere: Guhindura ingero z'uburebure (Amasomo 2)

a. Intego

Ubumenyi

Gusobanukirwa uburebure bwa km, hm, dam, m, dm, cm na mm.

Ubumenyigiro

Guhindura ingero z'uburebure akurikije uko zirutana.

Ubukeshya

Gupima vuba nta kwibeshya.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo guhindura ingero z'uburebure m, dm na cm iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri imfashanyigisho zihagije bifashisha bahindura ingero.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoresho binyuranye byo gukoresha bapima uburebure.
- Imbonerahamwe y'ingero z'uburebure ishushanyije ku rupapuro runini.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusobanurira abanyeshuri uko ingero z'uburebure zirutanwa wifashishije imbonerahamwe yo guhindura ingero uhereye ku rugero fatizo metero (m).
- Guha abanyeshuri imyitozo itandukanye yo guhindura ingero z'uburebure zibaza guhindura mu rugero ruto ndetse n'izibaza guhindura mu rugero runini bifashishije imbonerahamwe yo guhindura ingero.
- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'uburebure bakandikamo imibare bahawe maze bakayihindura mu rugero rwabajijwe.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko buzaza ingero mu mbonerahamwe n'uko bazihindura mu rugero bahawe.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 126 mu gitabo cy'umunyeshuri yo guhindura ingero z'uburebure.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gusoma no kwandika ingero z'uburebure.

Ibisubizo by'imyitozo iri ku rupapuro rwa 123 mu gitabo cy'umunyeshuri

- | | | |
|-----------|------------------|---------------|
| a) metero | c) km, hm na dam | e) Dekametero |
| b) 10 | d) dm, cm na mm | f) Bushumi |

Guhindura ingero z'uburebure

Nsuzuma ngusuzume iri ku rupapuro rwa 125 mu gitabo cy'umunyeshuri

- | | |
|-------------------|-----------------|
| a) km 8 = hm80 | c) hm 2 = dam20 |
| b) km 7 = dam 700 | d) hm 4 = m400 |

Reka nisuzume iri ku rupapuro rwa 125 mu gitabo cy'umunyeshuri

- | | |
|-------------------|------------------|
| a) hm 90 = km 9 | c) dam 60 = hm 6 |
| b) dam 800 = km 8 | d) m 500 = hm 5 |

Ibisubizo by'imyitozo iri ku rupapuro rwa 126 mu gitabo cy'umunyeshuri

- | | | |
|----------------------|---------------------|-------------------------|
| a) m 450 = dam 45 | e) dm 4 300 =m 430 | h) dm 4 mm7 = mm 407 |
| b) hm 13 = m 1300 | f) dcm 234 = m 2340 | i) m 6 dm 7 = dm 68 |
| c) dam 56 = dm 5 600 | g) km 8 m7 = m 8007 | j) dam 9 cm 4 = cm 9004 |
| d) mm 3 500 = dm 35 | | |

5.9.2 Ikigwa cya kabiri: Kugereranya ingero z'uburebure (Amasomo 2)

a. Intego

Ubumenyi

Gusobanukirwa uko ingero z'uburebure zirutana.

Ubumenyigiro

Kugereranya uburebure bwaba ubw'ibintu cyangwa ubw'ahantu yifashishije ingero z'uburebure.

Ubukasha

Kugaragaza akamaro ko gukoresha ingero z'uburebure mu buzima busanzwe.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo kugereranya ingero z'uburebure muri m, dm na cm iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri imfashanyigisho baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoresho binyuranye byo gukoresha bapima uburebure.
- Imbonerahamwe y'ingero z'uburebure ishushanyije ku rupapuro runini

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'uburebure bakandikamo imibare bagereranya maze yose bakayihindura mu rugero ruto nyuma bakayigereranya bakoresha ibimenyetso $<$, $>$ na $=$
- Igihe wigisha kugereranya uburebure bw'ibintu upima saba abanyeshuri kubipima bakoresheje metero, agacamurongo cyangwa dekametero hanyuma bakagereranya uburebure bwabyo bagendeye ku mibare bityo bagatahura ikirekire cyangwa ikigufi.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bagereranya ingero z'uburebure bakurikije uko zirutana.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 129 mu gitabo cy'umunyeshuri yo kugereranya ingero z'uburebure.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Kugereranya ingero z'uburebure.

Igikorwa cya 2 kiri ku rupapuro rwa 126 mu gitabo cy'umunyeshuri

- | | | |
|-------------------|---------------------|-------------------|
| a) m 234 > hm 23 | c) dm 49 < m 9 | e) cm 256 > dm 25 |
| b) km 3 = dam 300 | d) dcm 87 = dm 8700 | f) mm 57 > cm 5 |

Ibisubizo by'imyitozo iri ku rupapuro rwa 129 mu gitabo cy'umunyeshuri

- | | |
|----------------------------|------------------|
| 1) a) km 3 m 5 = hm 30 m 5 | c) dm 575 > m 57 |
| b) m 407 = hm 4 m 7 | d) dam 49 < hm 9 |
| 2) km 455 : 9 = inshuro 5 | |

Gutondeka ingero z'uburebure.

Gutondeka ingero z'uburebure uva ku rugero ruto ujya ku runini

Igikorwa kiri ku rupapuro rwa 129 mu gitabo cy'umunyeshuri

- | | |
|-------------------------|------------------------|
| a) m 125, dam 8, hm 2, | d) dam 6, dm 765, m 98 |
| b) cm 34, mm 245, dm 5, | e) m 256, dam 54, km 8 |
| c) hm 75, m 8 759, 9 km | f) cm 356, dm 49, m 7 |

Gutondeka ingero z'uburebure uva ku rugero runini ujya ku ruto

Igikorwa kiri ku rupapuro rwa 130 mu gitabo cy'umunyeshuri

- | | |
|--------------------------|-------------------------|
| a) hm 9, m 785, dam 54 | d) km 8, hm 56, dam 237 |
| b) hm 76, dam 79, m 247, | e) m 92, dam 8, dm 797 |
| c) dm 49, cm 39, mm 91, | f) km 9 dam 59, hm 48 |

Ibisubizo by'imyitozo iri ku rupapuro rwa 130 mu gitabo cy'umunyeshuri

- | | |
|------------------------------|----------------------------|
| 1) a) mm 985, mm 985, m 7 | c) mm 765, cm 324, m 8 |
| b) m 79, dm 897, dam 9 | d) mm 789, cm 87 dm 987 |
| 2) a) m 9 124, dam 698, km 6 | c) dm 987, dam 7, cm 3 695 |
| b) km 9, dam 768, hm 74 | d) dm 915, m 76, cm 4 897 |

5.9.3 Ikigwa cya gatutu: Guteranya ingero z'uburebure (Amasomo 2)

a. Intego

Ubumenyi

Gusobanukirwa uko bateranya ingero z'uburebure.

Ubumenyigiro

Guteranya ingero z'uburebure ubanje kuzihindura mu rugero rumwe.

Ubukeshya

Kugaragaza umuco w'ubunyangamugayo mu gupima ingero z'uburebure.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo guteranya ingero z'uburebure iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri imfashanyigisho bari bukoreshye.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoresho binyuranye byo gukoresha bapima uburebure.
- Imbonerahamwe y'ingero z'uburebure ishushanyije ku rupapuro runini.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'uburebure bagahindura imibare bahawe mu rugero ruto hanyuma bakayiteranya bahereye iburyo bajya ibumoso.

- Ku mahurizo yo guteranya ingero z'uburebure banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bateranya ingero z'uburebure n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo ya Reka nisuzume iri ku rupapuro rwa 131 mu gitabo cy'umunyeshuri yo guteranya ingero z'uburebure.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Guteranya ingero z'uburebure

Igikorwa kiri ku rupapuro rwa 131 mu gitabo cy'umunyeshuri

- | | |
|---|---|
| a) $\text{km } 9 + \text{m } 789 = \text{m } 9\ 789$ | d) $\text{m } 5 + \text{cm } 500 = \text{dam } 1$ |
| b) $\text{hm } 56 + \text{m } 238 = \text{m } 5\ 838$ | e) $\text{dm } 375 + \text{m } 2\ \text{dm } 5 = \text{dam } 4$ |
| c) $\text{dam } 475 + \text{m } 250 = \text{km } 5$ | f) $\text{cm } 35 + \text{m } 9 = \text{cm } 935$ |

Nsuzuma ngusuzume iri ku rupapuro rwa 131 mu gitabo cy'umunyeshuri

- | | |
|--|---|
| a) $\text{dam } 145 + \text{m } 2\ 550 = \text{km } 4$ | d) $\text{dam } 76 + \text{m } 240 = \text{hm } 1$ |
| b) $\text{hm } 39 + \text{dam } 610 = \text{km } 10$ | e) $\text{dm } 63 + \text{cm } 37 = \text{cm } 667$ |
| c) $\text{hm } 74 + \text{dam } 260 = \text{km } 10$ | f) $\text{cm } 27 + \text{m } 6 = \text{mm } 6270$ |

Reka nisuzume iri ku rupapuro rwa 131 mu gitabo cy'umunyeshuri

- | | |
|--|--|
| a) $47\ \text{hm} + \text{dam } 930 = \text{km } 14$ | c) $\text{m } 45 + \text{cm } 5\ 500 = \text{hm } 1$ |
| b) $\text{m } 3\ \text{cm } 8\ \text{dm } 25 = \text{cm } 558$ | |

Amahurizo yo guteranya ingero z'uburebure

Nsuzuma ngusuzume iri ku rupapuro rwa 132 mu gitabo cy'umunyeshuri

- 1) Amaze kugenda $\text{km } 359 + \text{hm } 4360 + \text{km } 405 = \text{km } 1200$
- 2) Bombi bafite $\text{m } 175 + \text{dm } 1250 = \text{m } 300$
- 3) Iyo migozi yombi $\text{m } 150 + \text{dm } 2500 = \text{m } 400$.

Reka nisuzume iri ku rupapuro rwa 133 mu gitabo cy'umunyeshuri

- 1) Yagenze $\text{m } 900 + \text{hm } 11 = \text{km } 20$
- 2) Birutse $\text{km } 21 + \text{dam } 1200 = \text{km } 33$

Ibisubizo by'imyitozo iri ku rupapuro rwa 133 mu gitabo cy'umunyeshuri

- 1) Kigali Rusizi ni $\text{km } 125 + \text{hm } 1670 = \text{km } 292$
- 2) Yombi yaba ireshya na $\text{m } 95 + \text{m } 105 = \text{m } 200$

5.9.4 Ikigwa cya kane: Gukuramo ingero z'uburebure (Amasomo 2)

a. Intego

Ubumenyi

Gusobanukirwa uko bakuramo ingero z'uburebure.

Ubumenyigiro

Gukuramo ingero z'uburebure ubanje kuzihindura mu rugero rumwe.

Ubukasha

Kugaragaza umuco w'ubunyangamugayo mu gupima ingero z'uburebure.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gukuramo ingero z'uburebure iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri imfashanyigisho bari bukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoresho binyuranye byo gukoresha bapima uburebure.
- Imbonerahamwe y'ingero z'uburebure ishushanyije ku rupapuro runini.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'uburebure bagahindura imibare bahawe mu rugero ruto hanyuma bakayikuramo bahereye iburyo bajya ibumoso.
- Ku mahurizo yo gukuramo ingero z'uburebure banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko kuramo ingero z'uburebure n'amategako bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo ya Nsuzuma ngusuzume iri ku rupapuro rwa 134 mu gitabo cy'umunyeshuri yo gukuramo ingero z'uburebure.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gukuramo ingero z'uburebure n' umubare ushyitse

Igikorwa kiri ku rupapuro rwa 133 mu gitabo cy'umunyeshuri

- | | |
|---------------------------------|---------------------------------|
| a) $hm\ 5 - m\ 298 = m\ 202$ | d) $cm\ 75 - mm\ 579 = mm\ 171$ |
| b) $km\ 9 - dam\ 832 = dam\ 68$ | e) $dam\ 753 - hm\ 69 = m\ 630$ |
| c) $dm\ 74 - cm\ 490 = dm\ 250$ | f) $dm\ 835 - dam\ 7 = dm\ 135$ |

Nsuzuma ngusuzume riri ku rupapuro rwa 134 mu gitabo cy'umunyeshuri

- a) $\text{km } 5 - \text{hm } 28 = \text{dam } 220$ d) $\text{dam } 415 - \text{kam } 3 = \text{m } 1150$
b) $\text{hm } 9 - \text{dam } 73 = \text{m } 170$ e) $\text{dam } 64 - \text{m } 440 = \text{hm } 2$
c) $\text{cm } 724 - \text{dm } 62 = \text{cm } 104$ f) $\text{m } 36 - \text{cm } 973 = \text{cm } 2627$

Amahurizo yo gukuramo ingero z'uburebure

Nsuzuma ngusuzume iri ku rupapuro rwa 134 mu gitabo cy'umunyeshuri.

- 1) Asigaranye $\text{km } 42 - \text{dam } 2\,900 = \text{km } 13$
2) Ryari risigaje $\text{dam } 9\,87 - \text{m } 5\,870 = \text{km } 4$

Reka nisuzume iri ku rupapuro rwa 135 mu gitabo cy'umunyeshuri

- 1) Yasigaranye: $\text{m } 175 - \text{dam } 9 = \text{m } 85$
2) Cm murusha: $\text{cm } 186 - \text{cm } 169 = \text{cm } 17$

Imyitozo iri ku rupapuro rwa 135 mu gitabo cy'umunyeshuri

- 1) Yasigaranye: $\text{dam } 12 - \text{m } 20 = \text{m } 100$
2) Ni Ishimwe. Yamurushije: $\text{m } 3 - \text{dm } 21 = \text{cm } 50$

5.9.5 Ikigwa cya gatanu: Gukuba ingero z'uburebure n'umubare ushyitse (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko bakuba ingero z'uburebure n'umubare ushyitse.

Ubumenyigiro

Gukuba ingero z'uburebure n'umubare ushyitse.

Ubukasha

Kugaragaza umuco w'ubunyangamugayo wo gukoresha neza ingero z'uburebure.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gukuba ingero z'uburebure n'umubare ushyitse iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri imfashanyigisho bari bukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoresho binyuranye byo gukoresha bapima uburebure.
- Imbonerahamwe y'ingero z'uburebure ishushanyije ku rupapuro runini.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'uburebure maze bagahindura igikubwa mu rugero rwabajijwe hanyuma ukabayobora

mu gikorwa cyo gukuba igikubwa n'igikuba buhagazi maze ukabafasha gusobanukirwa aho bahera bakuba n'uko bakomeza .

- Ku mahurizo yo gukuba ingero z'uburebure banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko gukuba ingero z'uburebure n'umubare ushyitse n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 136 mu gitabo cy'umunyeshuri yo gukuba ingero z'uburebure n'umubare ushyitse.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gukuba ingero z'uburebure n'umubare ushyitse

Igikorwa cya 2 kiri ku rupapuro rwa 135 mu gitabo cy'umunyeshuri

- | | |
|---|---|
| a) m 2 cm $3 \times 3 = \text{cm } 609$ | c) hm 5 dam $4 \times 2 = \text{m } 1\,080$ |
| b) dam $42 \times 5 = \text{hm } 21$ | d) m $81 \times 5 = \text{dm } 4\,050$ |

Imyitozo iri ku rupapuro rwa 136 mu gitabo cy'umunyeshuri

- | | |
|---|--|
| a) m $375 \times 2 = \text{dam } 75$ | d) dam 4 m $8 \times 5 = \text{dam } 24$ |
| b) m 72 dm $3 \times 3 = \text{dm } 2169$ | e) m 4 cm $2 \times 6 = \text{cm } 2\,412$ |
| c) hm $45 \times 4 = \text{km } 18$ | f) dm $215 \times 8 = \text{m } 172$ |

Amahurizo yo gukuba ingero z'uburebure n'umubare ushyitse

Nsuzuma ngusuzume iri ku rupapuro rwa 136 mu gitabo cy'umunyeshuri

- 1) Yose apima m $50 \times 6 = \text{m } 300$
- 2) Bose bafite urusinga rureshya na m $30 \times 3 = \text{m } 90$

Reka nisuzume iri ku rupapuro rwa 137 mu gitabo cy'umunyeshuri

- 1) Uburebure ni m $4 \times 8 = \text{m } 32$
- 2) Kizaba ari m $100 \times 9 = \text{m } 900$

Ibisubizo by'imyitozo iri ku rupapuro rwa 137 mu gitabo cy'umunyeshuri

- 1) Ryari rifite: dam $9 \times 6 = \text{dam } 54 = \text{m } 540$
- 2) Bose yabaguriye: m $5 \times 8 = \text{m } 40 = \text{dam } 4$

5.9.6 Ikigwa cya gatandatu: Kugabanya ingero z'uburebure n'umubare ushyitse (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko baganya ingero z'uburebure n'umubare ushyitse.

Ubumenyigiro

Kugabanya ingero z'uburebure n'umubare ushyitse.

Ubukeshya

Kugaragaza umuco w'ubunyangamugayo mu gukoresha neza ingero z'uburebure.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo kugabanya ingero z'uburebure n'umubare ushyitse iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri imfashanyigisho bari bukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoreshe binyuranye byo gukoresha bapima uburebure.
- Imbonerahamwe y'ingero z'uburebure ishushanyije ku rupapuro runini.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'uburebure maze bagahindura ikigabanywa mu rugero rwabajijwe hanyuma ukabayobora mu gikorwa cyo kugabanya ikigabanywa n'ikigabanywa mu mahembe maze ukabafasha gusobanukirwa aho bahera bakuba n'uko bakomeza.
- Ku mahurizo yo kugabanya ingero z'uburebure banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatany ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bakuramo ingero z'uburebure kugabanya ingero z'uburebure n'umubare ushyitse n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri igikorwa cya 2 kiri ku rupapuro rwa 138 mu gitabo cy'umunyeshuri yo kugabanya ingero z'uburebure.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Kugabanya ingero z'uburebure n'umubare ushyitse

Igikorwa cya 1 kiri ku rupapuro rwa 138 mu gitabo cy'umunyeshuri

- | | |
|---------------------------|--------------------------|
| a) dm $580 : 5 =$ cm 1160 | d) cm $480 : 8 =$ dm 6 |
| b) dam $2400 : 6 =$ km 4 | e) m $1200 : 3 =$ hm 4 |
| c) mm $5400 : 9 =$ dm 6 | f) dm $2000 : 4 =$ dam 5 |

Igikorwa cya 2 kiri ku rupapuro rwa 138 mu gitabo cy'umunyeshuri

- | | |
|--------------------------|----------------------------|
| a) hm $248 : 8 =$ m 3100 | d) cm $680 : 4 =$ dm 17 |
| b) dam $485 : 5 =$ m 970 | e) dm $650 : 5 =$ m13 |
| c) m $2800 : 7 =$ hm 4 | f) cm $960 : 3 =$ mm 3 200 |

Amahurizo yo kugabanya ingero z'uburebure n'umubare ushyitse

Nsuzuma ngusuzume iri ku rupapuro rwa 139 mu gitabo cy'umunyeshuri

- 1) Buri wese yatwaye $\longrightarrow$ m $240 : 6 =$ m 40 = dam 4
- 2) Buri wese yajyanye igisheke cya $\longrightarrow$ dm $18 : 9 =$ cm 20

Reka nisuzume iri ku rupapuro rwa 139 mu gitabo cy'umunyeshuri

- 1) Buri gorofa rizaba rireshya na $\longrightarrow$ m $50 : 10 =$ m 5
- 2) Buri wese azakubura $\longrightarrow$ hm $8 : 8 =$ hm 1 = m 100

Igisubizo cy'umwitozo uri ku rupapuro rwa 140 mu gitabo cy'umunyeshuri

Buri gipande gipima m $49 : 7 =$ dm 70.

5.10 Gusoza umutwe

a. Inshamake y'ibikubiye muri uyu mutwe

- Guhindura, kugereranya, guteranya no gukuramo ingero z'uburebure
- Gukuba no kugabanya ingero z'uburebure n'umubare ushyitse.

b. Ubumenyi bw'inyongera umwarimu asabwa kugira

- Kumenya kuyobora ibikorwa byose kandi yita kuri buri munyeshuri nta we asize inyuma
- Gusobanura ku buryo bwimbitse ibirebana n'ingero z'uburebure cyane cyane imikoreshereze yazo mu buzima busanzwe.
- Gutegura no gukoresha neza imfashanyigisho zinyuranye
- Kumenya uko yacengeza ingingo nsanganyamasomo igihe yigisha ingero z'uburebure.
- Kumenya neza imyigishirize y'Imibare ijyanye n'integanyanyigisho ishingiye ku bushobozi.
- Kumenya ingero zose zikoreshwa mu gupima uburebure nka mayilo, intambwe, ikiganza, ukuboko n'ibindi.

c. Ibisubizo by'isuzuma risoza umutwe wa 5 riri mu gitabo cy'umunyeshuri ku rupapuro rwa 140 – 141

- 1) a) $\text{km } 2 \text{ m } 6 = \text{m } 2006$ d) $\text{dm } 2400 = \text{dam } 24$
 b) $\text{dm } 240 = \text{m } 24$ e) $\text{hm } 4 \text{ dm } 8 = \text{dm } 4 \text{ } 008$
 c) $\text{m } 7 \text{ mm } 8 = \text{mm } 7 \text{ } 008$ f) $\text{m } 4 \text{ } 500 = \text{hm } 45$
- 2) a) $\text{m } 456 < \text{hm } 8 \text{ dam } 5$ c) $\text{km } 8 \text{ dam } 9 > \text{dam } 789$
 b) $\text{mm } 46 = \text{cm } 4\text{mm } 6$ d) $\text{dam } 7 \text{ dm } 9 < \text{m } 79$
- 3) $\text{hm } 2 \text{ m } 9; \text{m } 259, \text{dam } 29 \text{ m } 5$
- 4) $\text{hm } 608, \text{km } 6 \text{ dam } 8, \text{dam } 68$
- 5) a) $\text{dam } 75 \times 4 = \text{km } 3$ c) $\text{m } 4 \text{ cm } 8 \times 5 = \text{dm } 204$
 b) $\text{dcm } 590 = 5 = \text{m } 1180$ d) $\text{dm } 6 \text{ } 400 : 8 = \text{dm } 8$
- 6) a) $\text{dm } 750$ b) $\text{dam } 12$ c) $\text{m } 108 + \text{m } 56 = \text{m } 164$
 d) $\text{m } 108$
 e) $\text{Kamana yagenze m } 108 + 56 + 64 + 108 + 125 + 75 = \text{m } 536$
- 7) a) $\text{Kagabo m } 9759$ c) $\text{Jabo , Gatari, Kamazi, Kagabo}$
 b) $\text{Jabo m } 8000$ d) $\text{Kagabo, Kamazi, Gatari, Jabo}$
- 8) $\text{Yari asigaje km } 50 - \text{dam } 487 = \text{m } 5130$
- 9) $\text{Yirutse m } 500 \times 6 = \text{m } 3000 = \text{km } 3$
- 10) $\text{Buri mugozi ungana na m } 36 : 9 = \text{m } 4 = \text{cm } 400$

Imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire n'ibisubizo byayo

- 1) Hindura izi ngero:
 a) $\text{m } 2 \text{ cm } 8 = \text{cm } \dots$ b) $\text{km } 8 = \text{hm } \dots$ c) $\text{dam } 7 \text{ dm } 6 = \text{dm } \dots$
- 2) Tondeka uhareye ku rugero ruto ujya ku rugero runini
 $\text{hm } 4, \text{m } 67, \text{km } 8, \text{dam } 37 \rightarrow$
- 3) Tondeka uhareye ku rugero runini ujya ku rugero ruto
 $\text{m } 9, \text{mm } 456, \text{dm } 18, \text{cm } 789 \rightarrow$
- 4) Koresha $>, <$ na $=$ ugereranye izi ngero
 a) $\text{m } 45 \dots \text{dam } 4 \text{ dm } 5$ b) $\text{dam } 72 \dots \text{m } 720$ c) $\text{hm } 36 \dots \text{km } 3 \text{ dam } 98$
- 5) Kora
 a) $245 \text{ m } + \text{dm } 550 = \text{hm} \dots$ c) $\text{cm } 125 \times 4 = \text{m } \dots$
 b) $\text{km } 8 - \text{dcm } 567 = \text{dam } \dots$ d) $\text{dam } 800 : 5 = \text{hm } \dots$
- 6) Kora aya mahurizo
 a) Keza agenda $\text{km } 5$ ava mu rugo ajya ku isoko. Iyo agiye yo akagaruka aba agenze hm zingahe?
 b) Musoni yavuye mu rugo ajya ku biro by'Intara biherereye kuri $\text{km } 150$.

Amaze kugenda hm 900 arananirwa acumbika aho. Ubwo yananiwe asigaje urugendo rureshya rute?

- c) Akimana agenda km 4 ava mu rugo ajya ku ishuri buri minsi.
Ubwo agenda hm zingahe mu minsi 5?
- d) Gabanya ku buryo bungana igisheke gipima m 4 abantu 2. Buri wese azatwara cm zingahe?

Ibisubizo by'imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire yabo

- 1) a) cm 208 b) hm 80 c) cm 706
- 2) m 67, dam 37, hm 4, km 8
- 3) m 9, cm 789, dm 18, mm 456
- 4) Koresha $>$, $<$ na = ugereranye izi ngero:
 - a) m 45 $>$ dam 4 dm 5 b) dam 72 = m 720 c) hm 36 $<$ km 3 dam 98
- 5) Kora
 - a) hm 3 b) dam 233 c) m 5 d) hm 16
- 6) a) Aba agenze hm : km $5 \times 2 =$ km 10 (km 5 + km 5 = km 10 = h 100
 b) Yananiwe asigaje kugenda: km 150 – hm 900 = km 60
 c) Mu minsi 5 agenda : km $4 \times 5 =$ hm 200
 d) Buri wese azatwara: m $4 : 2 =$ cm 200

e. Imyitozo y'umwihariko ihabwa abanyeshuri bagenda bihuta cyane mu myigire yabo kurusha abandi n'ibisubizo byayo

- 1) Hindura izi ngero:
 - a) dam 45 dm 8 = dm ...
 - b) hm 24 m 45 = m ...
 - c) 38 dm 97 mm = mm ...
- 2) Tondeka uhareye ku rugero ruto ujya ku rugero runini
dam 975, km 8, hm 79, m 9 875
- 3) Tondeka uhareye ku rugero runini ujya ku rugero ruto
mm 8765, dm 97, m 9, cm 786
- 4) Koresha $>$, $<$ na ugereranye izi ngero:
 - a) hm 4 dm 9 ... dam 49
 - b) m 897 dm 6 ... dam 85 m 7
 - c) dm 75 mm 9 cm 750 mm 9
- 5) Kora:
 - a) mm 4 560 + cm 544 = dm ...
 - b) dm 9 780 – m 898 = dam ...
 - c) dam 789 $\times$ 9 = dam...
 - d) km 9 882 : 9 = km...
- 6) Kora aya mahurizo
 - a) Umukerarugendo yagenze km 75 ku wa Mbere, hm 870 ku wa Kabiri na

dam 9 600 ku wa Gatatu. Ubwo yagenze km zingahe muri icyo minsi itatu?

- b) Kagisha yagiye mu marushanwa yo gusiganwa kwiruka km 42. Asigaje dam 2 900 ngo arangize irushanwa aranyirwa yivana mu irushanwa. Ubwo yagenze km zingahe ?
- c) Abatoni yafatanyije utugozi 75 dupima cm 80 kamwe kamwe. Ubwo yagize umugozi upima dam zingahe?
- d) Gabanya ku buryo bungana umugozi wa m 441 abacuruzi 9. Ubwo buri mucuruzi uzamuha umugozi upima cm zingahe?

f. Ibisubizo by'imyitozo y'umwihariko ihabwa abanyeshuri bagenda bihuta cyane mu myigire yabo kurusha abandi

- 1. a) dm 4508 b) m 2445 c) mm 3897
- 2. hm 79, km 8, dam 975, m 9875
- 3. dm 97, m 9, mm 8765, cm 786
- 4. a) hm 4 dm 9 < dam 49 b) m 897 dm 6 > dam 85 m 7
c) dm 75 mm 9 = cm 750 mm 9
- 5. a) mm 4560 + cm 544 = dm 100 c) dam 789 × 9 = dam 7101
b) dm 9780 – m 898 = dam 8 d) km 9882 : 9 = km 1098
- 6. a) Yagenze : km 75 + hm 870 + dam 9600 = km 258
b) Yagenze : km 42 – dam 2900 = km 13
c) Yagize umugozi upima dam: cm 80 × 75 = dam 6
d) Buri mucuruzi uzamuha umugozi upima cm: m 441 : 9 = m 49

Umutwe wa 6: Ingero z'uburemere kuva kuri kg kugera kuri g

6.1 Ubushobozi bw'ingenzi bugamijwe

Gupima no kwerekana isano iri hagati y'ingero z'uburemere, kugereranya, guteranya, gukuramo ingero z'uburemere, gukuba no kugabanya ingero z'uburemere n'umubare ushyitse.

6.2 Ibyizwe mbere bifatanywe isano n'uyu mutwe

Urugero fatizo rw'ingero z'uburemere “kg” no gupima uburemere muri kg

6.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho

- *Umuco w'ubuziranenge* mu gihe umunyeshuri asoma ingero atajijwa bityo akaba yabasha gutahura ibyo bamupimira nabi mu buzima busanzwe. Kumenya gutahura umunzani ukora neza.
- *Umuco w'amahoro* mu gihe akorana na bagenzi be mu bwumvikane nta we abangamiye.
- *Umuco wo gukoresha neza umutungo* igihe apima, yirinda ko hari ibyapfa ubusa bitewe no kwibeshya cyangwa kumeneka.

6.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe

- *Gukoresha imvugo isobanutse* igihe yandika cyangwa asoma ingero z'uburemere.
- *Gushishoza*: mu gihe agererenya ibipimo by'ibintu binyuranye.
- *Kugira amashyushyu* yo guhora yiyungura ubumenyi ku ngero z'uburemere.
- *Kwikemurira ibibazo* mu gihe akoresha neza ingero z'uburemere mu buzima busanzwe.

6.5 Amagambo umunyeshuri yunguka muri uyu mutwe

Umunzani wa gakwege: umunzani upima bawufashe mu ntoki ugakururuka werekana ibiro.

Umunzani w'amabuye: uwo bapimisha bashyiraho ibipimo by'amabuye akozwe mu byuma.

Umunzani w'isaha: uteye nk'isaha ufite inshinge zerekana uko uburemere bungana.

Gupima ibiro byuzuye: gupima neza nta kantu ugabanyijeho.

Kunusura: gupima ibiro bituzuye.

Ubuziranenge bw'umunzani: kuba utagabanya ibiro ari muzima.

6.6 Uburyo bwo gusesengura ikibazo nyamukuru

Umwari mu asomesha agakuru kajyanye n'ikibazo cy'umuturage ugurisha umusaruro we atawupimye.

- Asaba abanyeshuri kukaganiraho no kugatangaho ibitekerezo bagaragaza icyo uwo muturage akeneye gusobanukirwa ngo arusheho gukora akazi ke neza.
- Abasobanurira ko ibisubizo nyabyo bazajya babibona mu masomo bagiye kwiga muri uyu mutwe.

6.7 Uko umwarimu yita by'umwihariko ku bafite ibibazo byihariye yigisha uyu mutwe

- Abafata bitinze bategurire imyitozo usanga mu gitabo cy'umwarimu; yoroshye ugereranyije n'iy'abandi.
- Abafite ubumuga bw'ingingo banza umenye izo ari zo ubategurire imfashanyigisho zihariye n'imyitozo wagenera buri wese.
- Abafite impano yo kumva no gukora vuba cyane bahe imyitozo usanga mu gitabo cy'umwarimu, ituma batarangaza abandi.

6.8 Ibyigwa biri muri uyu mutwe

	Urutonde rw'ibygwa	Umubare w'amasomo:18
1	Kwandika no gusoma ingero z'uburemere	1
2	Guhindura ingero z'uburemere	2
3	Kugereranya ingero z'uburemere	2
4	Guteranya ingero z'uburemere	3
5	Gukuramo ingero z'uburemere	3
6	Gukuba ingero z'uburemere n'umubare ushyitse	3
7	Kugabanya ingero z'uburemere n'umubare ushyitse	2
8	Isuzuma risoza umutwe	2

6.9 Imyigishirize ya buri kigwa

6.9.1 Ikigwa cya mbere: Gusoma no kwandika ingero z'uburemere (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko basoma n'uko bandika ingero z'uburemere.

Ubumenyigiro

Gusoma no kwandika ingero z'uburemere akurikije uko zirutana.

Ubukeshya

Gupima vuba nta kwibeshya.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo y'isubiramo ku ngero z'uburemere iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe basoma ingero z'uburemere.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Iminzani ipima uburemere: umunzani wa gakwege, uw'isaha, ...
- Imbonerahamwe y'ingero z'uburemere ishushanyije ku rupapuro runini.

d. Ibikorwa by'imyigire n'imyigishirize

- Kuyobora abanyeshuri bakitegereza amashusho ari mu gitabo cyabo maze bagasoma ingano cyangwa uburemere bugiye bwanditse kuri buri shusho.
- Guca imbonerahamwe yo guhindura ingero z'uburemere kuva kuri kg kugera kuri g ku kibaho maze ukayobora abanyeshuri mu gikorwa cyo kugaragaza isano zifitanye.
- Guha abanyeshuri umwanya wo kwigana imbonerahamwe yo guhindura ingero z'uburemere kuva kuri kg kugera kuri g waciye mu makayi yabo.
- Gushyira udupapuro twanditseho ingero z'uburemere kuva kuri kg kugera kuri g mu gakarito maze buri munyeshuri akajya imbere agatombora agapapuro akagafungura hanyuma agasoma urugero rw'uburemere rwanditseho.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko basoma n'uko bandika ingero z'uburemere.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 145 mu gitabo cy'umunyeshuri yo gusoma no kwandika ingero z'uburemere.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Kwandika no gusoma ingero z'uburemere kuva kuzi kg kugera kuri g
Imyitozo iri ku rupapuro rwa 145 mu gitabo cy'umunyeshuri

- 1) kg → hegitogarama
hg → garama
dag → dekgarama
g → kilogarama

2) a) Oya

b) Oya

c) Oya

6.9.2 Ikigwa cya kabiri: Guhindura ingero z'uburemere (amasomo 2)

a. Intego

Ubumenyi

Gusobanukirwa uburemere bwa **kg, hg, dag** na **g**.

Ubumenyigiro

Guhindura ingero z'uburemere akurikije uko zirutana.

Ubukeshya

Gupima vuba ntakwibeshya.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo guhindura ingero z'uburemere.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe bahindura ingero z'uburemere.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Iminzani ipima uburemere: umunzani wa gakwege, uw'isaha,...
- Imbonerahamwe y'ingero z'uburemere ishushanyije ku rupapuro runini.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusobanurira abanyeshuri uko ingero z'uburemere kuva kuri kg kugera kuri g zirutanwa wifashishije imbonerahamwe yo guhindura ingero.
- Guha abanyeshuri imyitozo itandukanye yo uhindura ingero z'uburemere kuva kuri kg kugera kuri g zibaza guhindura mu rugero ruto ndetse n'izibaza guhindura mu rugero runini bifashishije imbonerahamwe yo guhindura ingero.
- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'uburemere kuva kuri kg kugera kuri g bakandikamo imibare bahawe maze bakayihindura mu rugero rwabajijwe.

e. Ikomatany ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko buzuzwa ingero z'uburemere mu mbonerahamwe n'uko bazihindura mu rugero bahawe.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 147 mu gitabo cy'umunyeshuri yo guhindura ingero z'uburemere.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Guhindura ingero z'uburemere kuva kuri kg kugera kuri g
Igikorwa kiri ku rupapuro rwa 146 mu gitabo cy'umunyeshuri

a) dag 500

b) dag 120

c) g 430

d) g 400

Imyitozo iri ku rupapuro rwa 146 mu gitabo cy'umunyeshuri

- | | | |
|-----------|----------|-----------|
| a) g 1450 | c) hg 78 | e) g 772 |
| b) g 9008 | d) kg 6 | f) g 4650 |

6.9.3 Ikigwa cya gatatu: Kugereranya ingero z'uburemere (Amasomo 2)

a. Intego

Ubumenyi

Gusobanukirwa uko ingero z'uburebure zirutana.

Ubumenyigiro

Kugereranya uburemere bw'ibintu n'ingero z'uburemere.

Ubukeshya

Kugaragaza akamaro ko gukoresha ingero z'uburemere mu buzima busanzwe.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo kugereranya ingero z'uburemere.
- Guha abanyeshuri imfashanyigisho baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Iminzani ipima uburemere : umunzani wa gakwege, uw'isaha, ...
- Imbonerahamwe y'ingero z'uburemere ishushanyije ku rupapuro runini.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'uburemere kuva kuri kg kugera kuri g bakandikamo imibare bahawe kugereranya maze yose bakayihindura mu rugero ruto nyuma bakayigereranya bakoresha ibimenyetso $<$, $>$ na $=$
- Igihe wigisha kugereranya uburemere kuva kuri kg kugera kuri g uterura, saba abanyeshuri guterura ibintu bitandukanye bakagenekereza uburemere bwabyo cyangwa bakagereranya ibintu bibiri bateruye bakavuga ikiremereye kurusha ikindi. Naho iyo bapima ibintu bitandukanye bakoresheje umunzani genzura ko umunzani ukora neza maze ubasabe kugereranya uburemere bw'ibyo bapimye.

e. Ikomatany ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko uko bagereranya ingero z'uburebure bakurikije uko zirutana.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 149 mu gitabo cy'umunyeshuri yo kugereranya ingero z'uburebure.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Kugereranya ingero z'uburemere

Igikorwa kiri ku rupapuro rwa 148 na 149 mu gitabo cy'umunyeshuri

- a) kg 2 < dag 203 c) dag 89 > kg 8 e) kg 5 dag 7 < hg 75
b) hg 67 = g 670 d) g 908 = hg 9 g 8 f) dag 135 > hg 12

Imyitozo iri ku rupapuro rwa 149 mu gitabo cy'umunyeshuri

- a) kg 6 g 9 < hg 69 c) dag 7 g 9 < h g 9 g 7 e) kg 8 dag 6 = hg 86
b) hg 78 > dag 87 d) g 479 > hg 4 g 9 f) hg 12 < dag 129

Gutondeka ingero z'uburemere kuva kuri kg kugera kuri g

Gutondeka ingero z'uburemere uvaku rugero ruto ujya ku rugero runini

Igikorwa cya 2 kiri ku rupapuro rwa 150 mu gitabo cy'umunyeshuri

- a) g 530, dag 45, hg 79 d) kg 4, dag 576, hg 76
b) hg 52, dag 549 hg 52, kg 9 e) dag 345, hg 56, kg 8
c) g 310, dag 79, hg 48 f) g 271, dag 54, kg 9

Gutondeka ingero z'uburemere uva ku rugero runini ujya ku rugero ruto

Igikorwa kiri ku rupapuro rwa 151 mu gitabo cy'umunyeshuri

- a) kg 7, hg 65, g 791 b) kg 4, g 869, dag 24
c) kg 9, hg 68, dag 153 d) hg 245, kg 5, dag 64

Imyitozo iri ku rupapuro rwa 151 mu gitabo cy'umunyeshuri

1. a) g 184, dag 54, hg 6 c) g 58, hg 7, dag 87
b) dag 45, hg 27, kg 9 d) g 97, dag 96, kg 6
2. a) hg 57, kg 5, g 897 c) kg 7, dag 48, g 38
b) hg 18, dag 29, g 47 d) hg 68, dag 164, g 91

6.9.4 Ikigwa cya kane: Guteranya ingero z'uburemere (Amasomo 2)

a. Intego

Ubumenyi

Gusobanukirwa uko bateranya ingero z'uburemere.

Ubumenyingiro

Guteranya ingero z'uburemere ubanje kuzihindura mu rugero rumwe.

Ubukasha

Kugaragaza umuco w'ubunyangamugayo mu gukoresha ingero z'uburemere.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo guteranya ingero z'uburemere.
- Guha abanyeshuri imfashanyigisho bari bukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

Ibikoresho binyuranye byo gucisha imbonerahamwe y'ingero. Umunzani, amabuye n'ibyo gupima binyuranye.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'uburemere kuva kuri kg kugera kuri g bagahindura imibare bahawe mu rugero ruto hanyuma bakayiteranya bahereye iburyo baja ibumoso.
- Ku mahurizo yo guteranya ingero z'uburemere kuva kuri kg kugera kuri g banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bateranya ingero z'uburemere n'amategako bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 152 mu gitabo cy'umunyeshuri yo guteranya ingero z'uburemere.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Guteranya ingero z'uburemere kuva kuri kg kugera kuri g

Igikorwa cya 2 kiri ku rupapuro rwa 151 mu gitabo cy'umunyeshuri

- a) kg 2 b) kg 6 c) hg 80 d) dag 730

Imyitozo iri ku rupapuro rwa 152 mu gitabo cy'umunyeshuri

- a) g c) dag e) kg
b) kg d) kg f) dag

Amahurizo yo guteranya ingero z'uburemere kuva kuri kg kugera kuri g

Nsuzuma ngusuzume iri ku rupapuro rwa 152 mu gitabo cy'umunyeshuri

- 1) kg z'ifu y'imvange yagize: $\text{kg } 56 + \text{kg } 195 + \text{kg } 189 + \text{kg } 205 = \text{kg } 645$
2) Umubare wa kg yasaruye mu myaka ibiri: $\text{hg } 987 + \text{dag } 9130 = \text{kg } 190$

Reka nsuzume iri ku rupapuro rwa 153 mu gitabo cy'umunyeshuri

- 1) Umubare wa kg yacurujye mu minsi ibiri: $\text{dag } 975 + \text{g } 9250 = \text{kg } 19$
2) Umubare wa kg z'ubunyobwa zaranguwe: $\text{kg } 375 + \text{hg } 2250 = \text{kg } 600$

Imyitozo iri ku rupapuro rwa 153 mu gitabo cy'umunyeshuri

- 1) Kg yaranguye: $\text{hg } 1000 + \text{kg } 50 + \text{kg } 50 + \text{kg } 50 + \text{dag } 7500 = \text{kg } 325$
2) Kg z'ibintu yahashye: $\text{g } 500 + \text{hg } 10 + \text{dag } 50 + \text{kg } 2 + \text{dag } 300 + \text{hg } 10 = \text{kg } 8$

6.9.5 Ikigwa cya gatanu: Gukuramo ingero z'uburemere (Amasomo 3)

a. Intego

Ubumenyi

Gusobanukirwa uko bakuramo ingero z'uburemere.

Ubumenyigiro

Gukuramo ingero z'uburemere ubanje kuzihindura mu rugero rumwe.

Ubukeshya

Kugaragaza umuco w'ubunyangamugayo mu gukoresha ingero z'uburemere.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gukuramo ingero z'uburemere.
- Guha abanyeshuri imfashanyigisho bari bukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Iminzani ipima uburemere : umunzani w'agakwege, uw'isaha, ...
- Imbonerahamwe y'ingero z'uburemere ishushanyije ku rupapuro runini.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'uburemere kuva kuri kg kugera kuri g bagahindura imibare bahawe mu rugero ruto hanyuma bakayikuramo bahereye iburyo bajya ibumoso.
- Ku mahurizo yo gukuramo ingero z'uburemere kuva kuri kg kugera kuri g banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanyanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko kuramo ingero z'uburemere n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 154 mu gitabo cy'umunyeshuri yo gukuramo ingero z'uburemere.

g. Ibisubizo by'imyitozo n'ibikorwa

Gukuramo ingero z'uburemere kuva kuri kg kugera kuri g

Igikorwa kiri ku rupapuro rwa 154 mu gitabo cy'umunyeshuri

- | | | | |
|------------|------------|------------|------------|
| a) g 51 | c) g 8 850 | e) g 1 080 | g) g 400 |
| b) dag 186 | d) hg 43 | f) dag 17 | h) dag 822 |

Imyitozo iri ku rupapuro rwa 154 mu gitabo cy'umunyeshuri

- a) kg b) dag c) dag d) kg

Amahurizo yo gukuramo ingero z'uburemere kuva kuri kg

Nsuzuma ngusuzume iri ku rupapuro rwa 155 mu gitabo cy'umunyeshuri

- 1) Umubare wa kg yasigaranye: $\text{kg } 65 - \text{hg } 390 = \text{kg } 26$
- 2) Umubare wa hg twasigaranye: $\text{kg } 50 - \text{dag } 1200 = \text{hg } 380$

Reka nisuzume iri ku rupapuro rwa 155 mu gitabo cy'umunyeshuri

- 1) Mugeni apima: $\text{kg } 39 - \text{kg } 6 = \text{kg } 33$
- 2) Umubare wa kg Mariza yatakaje: $\text{kg } 98 - \text{kg } 65 = \text{kg } 33$

Imyitozo iri ku rupapuro rwa 156 mu gitabo cy'umunyeshuri

- 1) Umubare wa kg yasigaranye $\text{kg } 100 - (\text{hg } 380 + \text{dag } 4\,500) = \text{kg } 17$
- 2) Umubare wa kg yasigaranye: $\text{hg } 8\,000 - \text{dag } 5\,000 = \text{kg } 30$

6.9.6 Ikigwa cya gatandatu: Gukuba ingero z'uburemere n'umubare (Amasomo 3) ushyitse

a. Intego

Ubumenyi

Gusobanukirwa uko bakuba ingero z'uburemere n'umubare ushyitse.

Ubumenyigiro

Gukuba ingero z'uburemere n'umubare ushyitse.

Ubukeshya

Kugaragaza umuco w'ubunyangamugayo wo gukoresha neza ingero z'uburemere.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gukuba ingero z'uburemere n'umubare ushyitse.
- Guha abanyeshuri imfashanyigisho bari bukoreshye.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Iminzani ipima uburemere: umunzani wa gakwege, uw'isaha, ...
- Imbonerahamwe y'ingero z'uburemere ishushanyije ku rupapuro runini.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'uburemere kuva kuri kg kugera kuri g, bagahindura igikubwa mu rugero rwabajijwe hanyuma ukabayobora mu gikorwa cyo gukuba igikubwa n'igikuba buhagazi maze ukabafasha gusobanukirwa aho bahera bakuba n'uko bakomeza.

- Ku mahurizo yo gukuba ingero z'uburemere kuva kuri kg kugera kuri g, banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko gukuba ingero z'uburemere n'umubare ushyitse n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri Nsuzuma ngusuzume iri ku rupapuro rwa 157 mu gitabo cy'umunyeshuri yo gukuba ingero z'uburemere n'umubare ushyitse.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gukuba ingero z'uburemere kuva kuri kg kugera kuri g n' umubare ushyitse

Igikorwa kiri ku rupapuro rwa 156 mu gitabo cy'umunyeshuri

- | | | | |
|----------|-----------|-----------|-----------|
| a) hg 55 | c) hg 9 | e) hg 87 | g) dag 27 |
| b) kg 1 | d) dag 92 | f) g 2380 | h) dag 69 |

Nsuzuma ngusuzume ku rupapuro rwa 156 mu gitabo cy'umunyeshuri

- | | | | | |
|--------|--------|--------|--------|-------|
| a) dag | c) kg | e) dag | g) dag | i) kg |
| b) hg | d) dag | f) dag | h) hg | j) kg |

Amahurizo yo gukuba ingero z'uburemere kuva kuri kg kugera kuri g

Nsuzuma ngusuzume iri ku rupapuro rwa 156 mu gitabo cy'umunyeshuri

- 1) Amapaki 9 apima: $g\ 500 \times 9 = hg\ 45$
- 2) Kg z'umuceri duteka mu minsi 8: $g\ 500 \times 8 = kg\ 4$

Reka nisuzume iri ku rupapuro rwa 158 mu gitabo cy'umunyeshuri

- 1) Umubare wa kg ziri mu mapaki 8: $kg\ 5 \times 8 = kg\ 40$
- 2) Umubare wa kg gitonora mu minsi 4: $kg\ 1\ 875 \times 4 = kg\ 7\ 500$

Imyitozo iri ku rupapuro rwa 158 mu gitabo cy'umunyeshuri

- 1) Umubare wa kg z'isukari zikorwa mu minsi 4 $kg\ 2\ 750 \times 2 = kg\ 5\ 500$
- 2) Umubare wa kg z'umuceri zasaruwe $kg\ 100 \times 9 = kg\ 900$

6.9.7 Ikigwa cya karindwi: Kugabanya ingero z'uburemere n'umubare ushyitse (Amasomo 2)

a. Intego

Ubumenyi

Gusobanukirwa uko baganya ingero z'uburemere n'umubare ushyitse.

Ubumenyigiro

Kugabanya ingero z'uburemere n'umubare ushyitse.

Ubukeshya

Kugaragaza umuco w'ubunyangamugayo mu gukoresha neza ingero z'uburemere.

b. Imyitozo y'isubiramo /Intangiro

- Imyitozo inyuranye yo kugabanya ingero z'uburemere n'umubare ushyitse.
- Guha abanyeshuri imfashanyigisho bari bukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Iminzani ipima uburemere: umunzani wa gakwege, uw'isaha, ...
- Imbonerahamwe y'ingero z'uburemere ishushanyije ku rupapuro runini.
- Imfashanyigisho zivuga cyangwa bakorakora ku batabona.
- Imvugo y'amarenga ku batumva n'abatavuga.

d. Ibikorwa by'igigire n'igigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'uburemere kuva kuri kg kugera kuri g maze bagahindura ikigabanywa mu rugero rwabajijwe hanyuma ukabayobora mu gikorwa cyo kugabanya ikigabanywa n'ikigabanywa mu mahembe maze ukabafasha gusobanukirwa aho bahera bakuba n'uko bakomeza.
- Ku mahurizo yo kugabanya ingero z'uburemere kuva kuri kg kugera kuri g n'umubare ushyitse, banza ubahe ihurizo ry'urugero maze uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatany ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bakuramo ingero z'uburemere kugabanya ingero z'uburemere n'umubare ushyitse n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 159 mu gitabo cy'umunyeshuri yo gukuramo ingero z'uburemere.

g. Ibisubizo by'imyitozo n'ibikorwa bijyana n'iki kigwa

Kugabanya ingero z'uburemere kuva kuri kg kugera kuri g

Igikorwa kiri ku rupapuro rwa 158 mu gitabo cy'umunyeshuri

- a) hg 210 = kg 21 b) hg 11 c) dag 31 d) g 1 100

Imyitozo iri ku rupapuro rwa 159 mu gitabo cy'umunyeshuri

- a) kg b) g c) dag d) hg e) g f) hg

Amahurizo yo kugabanya ingero z'uburemere kuva kuri kg kugera kuri g.

Nsuzuma ngusuzume iri ku rupapuro rwa 159 mu gitabo cy'umunyeshuri

- 1) Umubare wa kg ziri muri buri kadobo $\longrightarrow$ kg $75 : 5 =$ kg 15
2) Umubare wa kg buri muntu yatwaye $\longrightarrow$ kg $200 : 8 =$ kg 25

Reka nisuzume iri ku rupapuro rwa 160 mu gitabo cy'umunyeshuri

- 1) Buri wese nzamuha $\longrightarrow$ dag $9\ 600 : 8 =$ kg 12
2) Umubare wa kg buri munyamuryango azahabwa $\longrightarrow$ hg $720 : 9 =$ kg 8
3) Buri paki izajyamo $\longrightarrow$ g $9\ 750 : 5 =$ dag 195.
4) Buri muntu nzamuha $\longrightarrow$ hg $240 : 8 =$ kg 3.

Imyitozo iri ku rupapuro rwa 160 mu gitabo cy'umunyeshuri

- 1) Buri rugemwe uzarushyira ho $\longrightarrow$ g $840 : 7 =$ g 120
2) Umubare wa kg buri murenge uzahabwa $\longrightarrow$ hg $4\ 000 : 5 =$ kg 80
3) uzajya mu dupaki $\longrightarrow$ g $8\ 000 : 8 =$ g 1 000
4) Buri muntu nzamuha $\longrightarrow$ dag $1\ 200 : 6 =$ kg 2

6.10 Gusozwa umutwe

a. Inshamake y'ibikubiye muri uyu mutwe

- Guhindura, kugereranya, guteranya no gukuramo ingero z'uburemere.
- Gukuba no kugabanya ingero z'uburemere n'umubare ushyitse.

b. Ubumenyi bw'inyongera umwarimu asabwa kugira

- Kumenya kuyobora ibikorwa byose kandi yita kuri buri munyeshuri nta we asize inyuma.
- Gusobanura ku buryo bwimbitse ibirebana n'ingero z'uburemere cyane cyane imikoreshereze yazo mu buzima busanzwe.
- Gutegura no gukoresha neza imfashanyigisho zinyuranye.
- Kumenya uko yacengeza ingingo nsanganyamasomo igihe yigisha ingero z'uburemere.

- Kumenya neza imyigishirize y'imibare ijyanye n'integanyanyigisho ishingiyeye ku bushobozi.
- Kumenya ibindi bipimo bikoreshwa bashaka kumenya uburemere nk'ingemeri, akadobo ...
- Kumenya imvugo ikoreshe mu gupima uburemere: inusu, irobo.
- Kumenya ibikoresho bikoreshwa cyane cyane mu gupima umusaruro w'abaturage.

c. Ibisubizo by'isuzuma risoza umutwe wa 6 riri ku rupapuro rwa 161 mu gitabo cy'umunyeshuri.

- 1) a) dag 825 b) 569 c) hg 78 d) g 6 079
- 2) a) hg 74 g 79 > dag 745 b) g 798 < dag 798
- 3) g 487, hg 48, dag 487
- 4) a) hg 65, kg 6 g 8, dag 56 g 8 b) hg 75 kg 5 hg 7, dag 627
- 5) a) kg 8 b) hg 90 c) dag 9
- 6) a) Umubare wa kg yaranguye muri iyo minsi 3:
hg 750 + dag 6 500 + kg 60 = kg 200
- b) Umubare wa hg z'isukari yaguze: kg 5 × 7 = hg 350
- c) Umubare wa kg buri munyamuryango yahawe: hg 1 000: 4 = kg 25
- d) Umubare wa kg z'ubunyobwa yasigaranye: dag 857 – g 6 570 = kg 2

d. Imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire yabo.

- 1) Hindura izi ngero:
a) kg 5 g 8 = g ... b) hg 8 dag 7 = g ... c) dag 4 g 9 = g ...
- 2) Tondeka uhareye ku rugero ruto ujya ku rugero runini
hg 8, g 97, kg 5, dag 78 →
- 3) Tondeka uhareye ku rugero runini ujya ku rugero ruto
g 99, dag 56, hg 78, kg 9 →
- 4) Koresha >, < na = ugereranye izi ngero:
a) hg 95 □ kg 9 b) dag 79 □ g 790 c) hg 69 □ kg 9 dag 8
- 5) Kora
a) g 950 + dag 5 = kg ... c) hg 15 × 8 = kg ...
b) kg 5 – dag 67 = dag ... d) dag 560 : 7 = hg ...
- 6) Kora aya mahurizo:
a) Butera yaguze 75 kg z'ibishyimbo ku wa Mbere, 980 hg ku wa Kabiri na dag 7 600 ku wa Gatatu. Ubwo yaguze kg zingana iki muri iyo minsi itatu?

- e. Ibisubizo by'imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire yabo**

- f. Imyitozo y’umwihariko ihabwa abanyeshuri bagenda bihuta cyane mu myigire yabo kurusha abandi.**

- 134

- c) $hg\ 225 \times 6 = kg \dots$
- d) $dag\ 960 : 8 = hg \dots$
- 6) Kora aya mahurizo:
 - a) Gwiza yasaruye $kg\ 785$ z'umuceri umwaka ushize naho uyu mwaka yasaruye $kg\ 998$. Ubwo muri iyi myaka ibiri amaze gusarura kg zingahe?
 - b) Muhorakeye yaranguye $kg\ 50$ z'ibishyimbo agurishaho $dag\ 950$ mu gitondo, $hg\ 75$ ku manwa na $g\ 9\ 000$ ni mugoroba. Yacurujye ibishyimbo bingana iki?
 - c) Uwamahoro arangura $kg\ 98$ z'umuceri buri cyumweru. Ubwo arangura kg z'ingahe mu byumweru 52 ?
 - d) Gabanya ku buryo bungana $kg\ 9459$ amazu y'ubucuruzi 9. Buri nzu uzayihya kg zingahe z'umuceri ?

g. Ibisubizo by'nyitozo y'umwihariko ihabwa abanyeshuri bagenda bihuta cyane mu myigire yabo kurusha abandi

- 1) a) $hg\ 58\ g\ 9 = g\ 5809$
 b) $dag\ 87\ g\ 9 = g\ 879$
 c) $kg\ 9\ g\ 765 = g\ 9765$
- 2) $dag\ 72, hg\ 79, g\ 896, kg\ 9$
- 3) $g\ 9\ 876, dag\ 875, kg\ 7, hg\ 65$
- 4) a) $kg\ 895 > hg\ 6597$
 b) $g\ 6570 < dag\ 657$
 c) $kg\ 96 = kg\ 98\ dag\ 5$
- 5) Kora: a) $kg\ 180$ b) $g\ 83$ c) $kg\ 135$ d) $hg\ 12$
- 6) Kora aya mahurizo:
 - a) Muri iyi myaka ibiri amaze gusarura: $kg\ 785 + kg\ 998 = kg\ 1783$
 - b) Yacurujye: $dag\ 950 + hg\ 75 + g\ 9000 = kg\ 26$
 Yasigaranye: $kg\ 50 - kg\ 26 = kg\ 24$
 - c) Arangura kg : $kg\ 98 \times 52 = kg\ 5096$
 - d) Buri nzu nzayihya: $kg\ 9459 : 9 = kg\ 1051$

Umutwe wa 7: Ingero z'ibitembanuzi kuva kuri *l* kugera kuri *ml*

7.1 Ubushobozi bw'ingenzi bugamijwe

Gupima no kwerekana isano iri hagati y'ingero z'ibitembabuzi, kugereranya, guteranya, gukuramo ingero z'ibitembabuzi, gukuba no kugabanya ingero z'ibitembabuzi n'umubare ushyitse.

7.2 Ibyizwe mbere bifatanywe isano n'uyu mutwe

Urugero fatizo rw'ingero z'ibitembabuzi “*l*”

7.3. Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho

- *Uburezi budaheza* bugaragara mu guha abanyeshuri bose amahirwe angana yo kwiga.
- *Gufata neza ibidukikije* bugaragara igihe abanyeshuri bose basukura aho bakorera cyangwa bafata neza imfashanyigisho bakoresheje.
- *Umuco wo gukoresha neza umutungo* ugaragara mu myitozo isaba abanyeshuri gucunga neza imfashanyigisho no gukora gahunda y'ibikorwa birinda gusesagura.
- *Umuco w'amahoro* ugaragara mu bikorwa byo mu matsinda aho umunyeshuri akorana na bagenzi be mu bwumvikane nta we abangamiye.

7.4 Ubushobozi umunyeshuri muri uyu mutwe

- *Gushyikirana* n'abandi igihe akorera mu matsinda cyangwa afatanywe n'abandi
- *Gukoresha imvugo isobanutse* igihe yandika cyangwa asoma ingero z'ibitembabuzi.
- *Kugira amashyushyu* yo guhora yiyungura ubumenyi mu mibare.
- *Kwikemurira ibibazo* mu gihe akoresha neza ingero z'ibitembabuzi mu buzima busanzwe.

7.5 Amagambo umunyeshuri yunguka muri uyu mutwe

Ibitembabuzi: ibintu byose bisukika kandi bishobora gutemba nk'amazi

Inusu: igice cya litiro

Irobo: litiro ugabanyijemo ibice 4

7.6 Uburyo bwo gusesengura ikibazo nyamukuru

- Umwarimu asomesha agakuru kajyanye n'ikibazo n'umworozi ugemera amata ku ikusanyirizo atazi ingano yayo.
- Asaba abanyeshuri kukaganiraho no kugatangaho ibitekerezo bagaragaza ibyo uwo mworozi gusobanukirwa mu mibare.
- Abasobanurira ko ibisubizo nyabyo bazajya babibona mu masomo bagiye kwiga muri uyu mutwe.

7.7 Uko umwarimu yita by'umwihariko ku bafite ibibazo byihariye yigisha uyu mutwe

- Abafata bitinze bategurire imyitozo usanga mu gitabo cy'umwarimu; yoroshye ugereranyije n'iy'abandi .
- Abafite ubumuga bw'ingingo banza umenye izo ari zo ubategurire imfashanyigisho zihariye n'imyitozo wagenera buri wese.
- Abafite impano yo kumva no gukora vuba cyane bahe imyitozo usanga mu gitabo cy'umwarimu, ituma batarangaza abandi .

7.8 Ibyigwa biri muri uyu mutwe

	Urutonde rw'ibygwa	Umubare w'amasomo: 8
1	Kwandika no gusoma ingero zibitembabuzi	1
2	Guhindura ingero z' ibitembabuzi	1
3	Kugereranya ingero z' ibitembabuzi	1
4	Guteranya ingero z' ibitembabuzi	1
5	Gukuramo ingero z' ibitembabuzi	1
6	Gukuba ingero z'ibitembabuzi n'umubare ushyitse	1
7	Kugabanya ingero z'ibitembabuzi n'umubare ushyitse	1
8	Isuzuma risoza umutwe	1

7.9. Imyigishirize ya buri kigwa

7.9.1 Ikigwa cya 1: Gusoma no kwandika ingero z' ibitembabuzi (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko basoma n'uko bandika ingero z'ibitembabuzi.

Ubumenyigiro

Gusoma no kwandika ingero z' ibitembabuzi akurikije uko zirutana.

Ubukeshya

Gupima vuba nta kwibeshya.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo y'isubiramo ku ngero z' ibitembabuzi.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe basoma ingero z'ibitembabuzi.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoresho byo gupima ibitembabuzi nk'utujerikani, amajagi, amacupa y'amazi, ...

- Imbonerahamwe y’ingero z’ubitembabuzi ishushanyije ku rupapuro runini.

d. Ibikorwa by’imyigire n’imyigishirize

- Kuyobora abanyeshuri bakitegereza amashusho ari mu gitabo cyabo maze bagasoma ingano y’ibitembabuzi yanditse ku mashusho atandukanye.
- Guca imbonerahamwe yo guhindura ingero z’ibitembabuzi kuva kuri l kugera kuri ml ku kibaho maze ukayobora abanyeshuri mu gikorwa cyo kugaragaza isano zifitanye.
- Guha abanyeshuri umwanya wo kwigana imbonerahamwe yo guhindura ingero z’ibitembabuzi kuva kuri l kugera kuri ml waciye mu makayi yabo.
- Gushyira udupapuro twanditseho ingero z’ibitembabuzi kuva kuri l kugera kuri ml mu gakarito maze buri munyeshuri akajya imbere agatombora agapapuro akagafungura hanyuma agasoma urugero rw’ibitembabuzi rwanditseho.

e. Ikomatanya ry’ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko basoma n’uko bandika ingero z’uburemere.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 164 mu gitabo cy’umunyeshuri yo gusoma no kwandika ingero z’ibitembabuzi.

g. Ibisubizo by’imyitozo n’ibikorwa bijyanye n’iki kigwa

Ingero z’ibitembabuzi kuva ku l kugera kuri ml

Reka nisuzume iri ku rupapuro rwa 163 mu gitabo cy’umunyeshuri

- a) ml b) l c) dl

Gusoma no kwandika ingero z’ibitembabuzi kuva kuri l kugera kuri ml

Imyitozo iri ku rupapuro rwa 164 mu gitabo cy’umunyeshuri

- a) Litiro c) dl, dl na ml e) Ingero z’ibitembabuzi
b) 10 d) Icupa rya l .

7.9.2 Ikigwa cya kabiri: Guhindura ingero z’ibitembabuzi (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa ingero z’ibitembabuzi kuva kuri l kugera kuri ml .

Ubumenyigiro

Guhindura ingero z’ibitembabuzi akurikije uko zirutana.

Ubukeshya

Gupima vuba nta kwibeshya.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo guhindura ingero z'ibitembabuzi iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri iimfashanyigisho zihagije bari bwifashishe bahindura ingero z'ibitembabuzi.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoresho byo gupima ibitembabuzi nk'utujerikani, amajagi, amacupa y'amazi, ...
- Imbonerahamwe y'ingero z'ubitembabuzi ishushanyije ku rupapuro runini.
- Imfashanyigisho zivuga cyangwa bakorakora ku batabona.
- Imvugo y'amarenga ku batumva n'abatavuga.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusobanurira abanyeshuri uko ingero z'ibitembabuzi kuva kuri l kugera kuri ml zirutanwa wifashishije imbonerahamwe yo guhindura ingero uhereye ku rugero fatizo litiro (l) ukagera kuri ml .
- Guha abanyeshuri imyitozo itandukanye yo guhindura ingero z'ibitembabuzi zibaza guhindura mu rugero ruto ndetse n'izibaza guhindura mu rugero runini bifashishije imbonerahamwe yo guhindura ingero.
- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'ibitembabuzi kuva kuri l kugera kuri ml bakandikamo imibare bahawe maze bakayihindura mu rugero rwabajijwe.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko buzura ingero z'ibitembabuzi mu mbonerahamwe n'uko bazihindura mu rugero bahawe.

f. Isuzuma

Guha abanyeshuri imyitozo iri mu gitabo cy'umunyeshuri yo guhindura ingero z'ibitembabuzi.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Guhindura ingero z'ibitembabuzi.

Reka nisuzume iri ku rupapuro rwa 165 mu gitabo cy'umunyeshuri

- a) dl 80 c) ml 50 e) cl 940
b) cl 70 d) dl 920 f) ml 390

Nsuzuma ngusuzume iri ku rupapuro rwa 166 mu gitabo cy'umunyeshuri

- a) cl 9 b) 180 c) 17 d) 16 d) dl 5 f) 140

Imyitozo iri ku rupapuro rwa 165 – 166 mu gitabo cy’umunyeshuri

- a) 14 c) ml 5680 e) ml 409 g) cl 759
b) 113 d) cl 350 f) ml 2009 h) dl 3

7.9.3 icyigwa cya gatatu: Kugereranya ingero z’ibitembabuzi (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko ingero z’ibitembabuzi zirutana.

Ubumenyigiro

Kugereranya ibipimo bw’ibintu n’ingero z’ibitembabuzi.

Ubukeshya

Kugaragaza akamaro ko gukoresha ingero z’ibitembabuzi mu buzima busanzwe.

b. Imyitozo y’isubiramo /Intangiriro

- Imyitozo inyuranye yo kugereranya ingero z’ibitembabuzi.
- Guha abanyeshuri imfashanyigisho baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoresho byo gupima ibitembabuzi nk’utujerikani, amajagi, amacupa y’amazi, ...
- Imbonerahamwe y’ingero z’ubitembabuzi ishushanyije ku rupapuro runini.

d. Ibikorwa by’imyigire n’imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z’ibitembabuzi kuva kuri l kugera kuri ml bakandikamo imibare bahawe kugereranya maze yose bakayihindura mu rugero ruto nyuma bakayigereranya bakoresha ibimenyetso $<$, $>$ na $=$
- Igihe wigisha kugereranya ibitembabuzi kuva kuri l kugera kuri ml uterura, saba abanyeshuri guterura ibivomesho bitandukanye bagenekereza ubunini bwabyo cyangwa bakagereranya ibivomesho 2 bateruye bakavuga ikinini. Iyo bapima ibitembabuzi bitandukanye bakoresheje ibivomesho genzura ko ibyo bari gukoresha bifite l 1, cl 50 cyangwa ml 500 maze ubasabe kugereranya ubunini bw’ibivomesho bapimishije.

e. Ikomatany ry’ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko uko bagereranya ingero z’ibitembabuzi bakurikije uko zirutana.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 166 na 167 mu gitabo

cy'umunyeshuri yo kugereranya ingero z'ibitembabuzi.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Kugereranya ingero z'ibitembabuzi

Igikorwa kiri ku rupapuro rwa 168 mu gitabo cy'umunyeshuri

- a) $18\text{ dl} 7 > 25\text{ dl} 3$ c) $98 > 9$ e) $45\text{ ml} 7 > 45$
b) $67 = 670$ d) $900 = 9\text{ }166-167$ f) $593 < 94$

Imyitozo iri ku rupapuro rwa 169 mu gitabo cy'umunyeshuri

- a) $18\text{ m } 549 > 85$ c) $3\text{ ml } 7 < 19$ e) $112\text{ dl } 8 > 129$
b) $96 = 960$ d) $987 > 19\text{ dl } 7$

Gutondeka ingero z'ibitembabuzi

Gutondeka uva ku rugero ruto ujya ku rugero runini.

Igikorwa kiri ku rupapuro rwa 169 mu gitabo cy'umunyeshuri

- a) $305, 54, 97$ c) $7, 9, 5, 94$
b) $75, 854, 87$ d) $4\text{ ml } 9, 697, 8$

Reka nisuzume iri ku rupapuro rwa 170 mu gitabo cy'umunyeshuri

- a) $597, 9, 9$ c) $3, 57, 89$
b) $9, 67, 792$ d) $8, 9, 5$

Gutondeka uva ku rugero runini ujya ku rugero ruto

Igikorwa kiri ku rupapuro rwa 170 mu gitabo cy'umunyeshuri

- a) $978, 9, 856$ c) $59, 589, 5$
b) $18, 49, 68$ d) $8, 746, 67$

Reka nisuzume iri ku rupapuro rwa 170 mu gitabo cy'umunyeshuri

- a) $19, 21, 935$ c) $64, 2, 74$
b) $95, 5, 354$ d) $78, 4, 987$

Imyitozo iri ku rupapuro rwa 171– 172 mu gitabo cy'umunyeshuri

- 1) a) $697, 849, 95$ c) $879, 549, 87$
b) $279, 897, 96$ d) $647, 67, 748$
2) a) $95, 975, 48$ c) $86, 7, 958$
b) $875, 8, 49$ d) $98, 971, 624$

7.9.4 Ikigwa cya kane: Guteranya ingero z'ibitembabuzi (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko bateranya ingero z'ibitembabuzi.

Ubumenyigiro

Guteranya ingero z'ibitembabuzi ubanje kuzihindura mu rugero rumwe.

Ubukeshya

Kugaragaza umuco w'ubunyangamugayo mu gukoresha ingero z'ibitembabuzi.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo guteranya ingero z'ibitembabuzi.
- Guha abanyeshuri imfashanyigisho bari bukoreshye.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoreshe byo gupima ibitembabuzi nk'utujerikani, amajagi, amacupa y'amazi, ...
- Imbonerahamwe y'ingero z'ubitembabuzi ishushanyije ku rupapuro runini.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'ibitembabuzi kuva kuri *l* kugera kuri *ml* bagahindura imibare bahawe mu rugero ruto hanyuma bakayiteranya bahereye iburyo bajya ibumoso.
- Ku mahurizo yo guteranya ingero z'ibitembabuzi kuva kuri *l* kugera kuri *ml*, banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatany ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bateranya ingero z'ibitembabuzi n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 172 mu gitabo cy'umunyeshuri yo guteranya ingero z'ibitembabuzi.

g. Ibisubizo by'ibikorwa n'imyitozo bijyanye n'iki kigwa

Guteranya ingero z'ibitembabuzi kuva kuri *l* kugera kuri *ml*

Igikorwa kiri ku rupapuro rwa 172 mu gitabo cy'umunyeshuri

- a) *cl* 750 b) *ml* 9400 c) *cl* 500 d) *ml* 3606

Nsuzuma ngusuzume iri ku rupapuro rwa 172 mu gitabo cy'umunyeshuri

- a) *cl* 5355 b) *ml* 1400 c) *ml* 6 907 d) *ml* 1 800

Reka nisuzume iri ku rupapuro rwa 172 mu gitabo cy’umunyeshuri

- a) dℓ b) dℓ c) ℓ d) ℓ

Imyitozo iri ku rupapuro rwa 171 mu gitabo cy’umunyeshuri

- a) dℓ b) ℓ c) dℓ d) ℓ

Amahurizo yo guteranya ingero z’ibitembabuzi kuva kuri ℓ kugera kuri ml

Nsuzuma ngusuzume iri ku rupapuro rwa 173 mu gitabo cy’umunyeshuri

1. Umubare wa ℓ dukama buri muni: $ℓ 42 + dℓ 4800 = ℓ 90$
2. Umubare wa ℓ Butera yacurujye muri iyo minsi yombi:
 $dℓ 450 + dℓ 5500 = ℓ 10$

Reka nisuzume iri ku rupapuro rwa 173 mu gitabo cy’umunyeshuri

1. Ingano y’amazi akoreshwa mu kuvomera imboga buri muni:
 $ℓ 75 + dℓ 550 = ℓ 130$
2. Ingano y’amazi dukoresha buri muni:
 $dℓ 200 + dℓ 3 000 + ℓ 60 + ℓ 100 = ℓ 210$

Imyitozo iri ku rupapuro rwa 174 mu gitabo cy’umunyeshuri

- 1) Ingano y’amazi urwo rugo rukoresha: $dℓ 200 + dℓ 400 + ℓ 100 = ℓ 160$
- 2) Umubare wa ℓ yacurujye muri iyo minsi ibiri: $ℓ 658 + dℓ 2 320 = ℓ 890$

7.9.5 Ikigwa cya 5: Gukuramo ingero z’ibitembabuzi (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko bakuramo ingero z’ibitembabuzi.

Ubumenyingingiro

Gukuramo ingero z’ibitembabuzi ubanje kuzihindura mu rugero rumwe.

Ubukeshya

Kugaragaza umuco w’ubunyangamugayo mu gukoresha ingero z’ibitembabuzi.

b. Imyitozo y’isubiramo /Intangiriro

- Imyitozo inyuranye yo gukuramo ingero z’ibitembabuzi.
- Guha abanyeshuri imfashanyigisho bari bukoreshye.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoreshe byo gupima ibitembabuzi nk’utujerikani, amajagi, amacupa y’amazi, ...
- Imbonerahamwe y’ingero z’ubitembabuzi ishushanyije ku rupapuro runini.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'ibitembabuzi kuva kuri ℓ kugera kuri ml bagahindura imibare bahawe mu rugero ruto hanyuma bakayikuramo bahereye iburyo bajya ibumoso.
- Ku mahurizo yo gukuramo ingero z'ibitembabuzi kuva kuri ℓ kugera kuri ml, banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko kuramo ingero z'uburemere n'amategako bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 175 mu gitabo cy'umunyeshuri yo gukuramo ingero z'ibitembabuzi.

g. Ibisubizo by'imyitozo n'ibikorwa

Gukuramo ingero z'ibitembabuzi

Igikorwa cya 2 kiri ku rupapuro rwa 174 mu gitabo cy'umunyeshuri

- a) ℓ 21 b) ℓ 260 c) ℓ 50 d) ℓ 77

Nsuzuma ngusuzume iri ku rupapuro rwa 174 mu gitabo cy'umunyeshuri

- a) ml 950 b) ℓ 750 c) dl 20 d) ml 1200

Reka nisuzume iri ku rupapuro rwa 175 mu gitabo cy'umunyeshuri

- a) ℓ b) dl c) ℓ d) ml 89

Imyitozo iri ku rupapuro rwa 175 mu gitabo cy'umunyeshuri

- a) ℓ b) ℓ c) ℓ d) ml

Amahurizo yo gukuramo ingero z'ibitembabuzi.

Nsuzuma ngusuzume iri ku rupapuro rwa 174 – 175 mu gitabo cy'umunyeshuri

- 1) ℓ z'amazi zasigaye mu ijerikani: ℓ 20 – dl 169 = ℓ 310
2) ℓ z'umutobe twakirije abashyitsi: dl 3 000 – ℓ 40 = ℓ 260

Reka nisuzume iri ku rupapuro rwa 176 mu gitabo cy'umunyeshuri

- 1) ℓ nasigaranye nyuma yo kumesa: ℓ 60 – dl 375 = ℓ 225
2) Ingano y'amazi abura ngo Mugabo abumbe amatafari: ℓ 225 – dl 1750 = ℓ 50

Imyitozo iri ku rupapuro rwa 176 mu gitabo cy'umunyeshuri

- 1) Ingano y'amazi abura: ℓ 145 – dl 950 = ℓ 50
2) Umubare wa ℓ z'amazi yasigaranye: dl 750 – ℓ 38 = ℓ 37

7.9.6 Ikigwa cya gatandatu: Gukuba ingero z'uburemere n'umubare ushyitse (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko bakuba ingero z'ibitembabuzi n'umubare ushyitse.

Ubumenyigiro

Gukuba ingero z'ibitembabuzi n'umubare ushyitse.

Ubukeshya

Kugaragaza umuco w'ubunyangamugayo wo gukoresha neza ingero z'ibitembabuzi.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gukuba ingero z'ibitembabuzi n'umubare ushyitse.
- Guha abanyeshuri imfashanyigisho bari bukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo

c. Imfashanyigisho

- Ibikoresho byo gupima ibitembabuzi nk'utujerikani, amajagi, amacupa y'amazi, ...
- Imbonerahamwe y'ingero z'ubitembabuzi ishushanyije ku rupapuro runini.

d. Ibikorwa by'imyigire n'imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z'ibitembabuzi kuva kuri l kugera kuri ml , bagahindura igikubwa mu rugero rwabajijwe hanyuma ukabayobora mu gikorwa cyo gukuba igikubwa n'igikuba buhagaze maze ukabafasha gusobanukirwa aho bahera bakuba n'uko bakomeza.
- Ku mahurizo yo gukuba ingero z'ibitembabuzi kuva kuri l kugera kuri ml , banza ubahe ihurizo ry'urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanywa ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bakuba ingero z'ibitembabuzi n'umubare ushyitse n'amategeko bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri mu gitabo cy'umunyeshuri yo gukuba ingero z'ibitembabuzi n'umubare ushyitse.

g. Ibizubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gukuba ingero z'ibitembabuzi

Igikorwa kiri ku rupapuro rwa 177 mu gitabo cy'umunyeshuri

- a) 1 358 b) dℓ 236 c) dℓ 604 d) 1 39

Nsuzuma ngusuzume iri ku rupapuro rwa 177 mu gitabo cy'umunyeshuri

- a) dℓ 4578 b) dℓ 113 c) ℓ 165 d) dℓ 66

Reka nisuzume iri ku rupapuro rwa 177 mu gitabo cy'umunyeshuri

- a) 1 358 b) dℓ 236 c) dℓ 604 d) ℓ 52

Imyitozo iri ku rupapuro rwa 178 mu gitabo cy'umunyeshuri

- a) dℓ 5886 b) dℓ 452 c) ℓ 740 d) ℓ 100

Amahurizo yo gukuba ingero z'ibitembabuzi

Nsuzuma ngusuzume iri ku rupapuro rwa 178 mu gitabo cy'umunyeshuri

- 1) Ingano y'amazi yavomye: ℓ $15 \times 4 = ℓ 60$
2) Ingano y'amata iyo nka ikamwa: ℓ $32 \times 5 = ℓ 160$

Reka nisuzume iri ku rupapuro rwa 179 mu gitabo cy'umunyeshuri

- 1) Ingano y'amata tunywa buri muni: dℓ $500 \times 8 = ℓ 40$
2) Ingano ya lisansi Uwineza akoresha mu minsi 6: dℓ $750 \times 6 = ℓ 45$

Imyitozo iri ku rupapuro rwa 179 mu gitabo cy'umunyeshuri

- 1) Ingano y'amazi Uwingabire akoresha mu minsi 6: dℓ $250 \times 6 = ℓ 150$
2) Ingano y'amazi abanyeshuri 9 banywa mu minsi 2: (dℓ 50×9) $\times 2 = dℓ 90$

7.9.7 Ikigwa cya karindwi: Kugabanya ingero z'ibitembabuzi n'umubare ushyitse (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko baganya ingero z'ibitembabuzi n'umubare ushyitse.

Ubumenyigiro

Kugabanya ingero z'ibitembabuzi n'umubare ushyitse.

Ubukeshya

Kugaragaza umuco w'ubunyangamugayo mu gukoresha neza ingero z'ibitembabuzi.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo kugabanya ingero z'ibitembabuzi n'umubare ushyitse.
- Guha abanyeshuri imfashanyigisho bari bukoresha.

- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Ibikoresho byo gupima ibitembabuzi nk’utujerikani, amajagi, amacupa y’amazi, ...
- Imbonerahamwe y’ingero z’ubitembabuzi ishushanyije ku rupapuro runini.

d. Ibikorwa by’imyigire n’imyigishirize

- Gusaba abanyeshuri guca imbonerahamwe yo guhindura ingero z’ibitembabuzi kuva kuri l kugera kuri ml maze bagahindura ikigabanywa mu rugero rwabajijwe hanyuma ukabayobora mu gikorwa cyo kugabanya ikigabanywa n’ikigabanywa mu mahembe maze ukabafasha gusobanukirwa aho bahera bakuba n’uko bakomeza.
- Ku mahurizo yo kugabanya ingero z’ibitembabuzi kuva kuri l kugera kuri ml , n’umubare ushyitse banza ubahe ihurizo ry’urugero nurangiza uhe abanyeshuri umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanya ry’ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make, bagabanya ingero z’ibitembabuzi n’umubare ushyitse n’amategako bakurikiza.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 180 mu gitabo cy’umunyeshuri yo gukuramo ingero z’ibitembabuzi.

g. Ibisubizo by’imyitozo n’ibikorwa bijyanye n’iki kigwa

Kugabanya ingero z’ibitembabuzi

Igikorwa cya 2 kiri ku rupapuro rwa 178 mu gitabo cy’umunyeshuri

- a) $dl\ 2$ b) $dl\ 2\ 120$ c) $ml\ 850$ d) $l\ 1\ 315$

Nsuzuma ngusuzume iri ku rupapuro rwa 180 mu gitabo cy’umunyeshuri

- a) $1\ 138$ b) $l\ 182$ c) $ml\ 288$ d) $dl\ 232$

Reka nisuzume iri ku rupapuro rwa 180 mu gitabo cy’umunyeshuri

- a) dl b) dl c) ml d) ml

Imyitozo iri ku rupapuro rwa 179 mu gitabo cy’umunyeshuri

- a) dl b) dl c) ml d) dl

Amahurizo yo kugabanya ingero z’ibitembabuzi.

Nsuzuma ngusuzume iri ku rupapuro rwa 181 mu gitabo cy’umunyeshuri

- 1) Umubare w’utujerikani $\longrightarrow dl\ 500 : dl\ 50 = 10$

2) Umubare wa ℓ waha buri wese $\longrightarrow \ell 800 : 8 = \ell 1$

Reka nisuzume iri ku rupapuro rwa 181 mu gitabo cy'umunyeshuri

1) Umubare wa ℓ zizahabwa buri rugo $\longrightarrow \ell 450 : 9 = \ell 500$

2) Umubare wa ℓ zitekwa buri muni $\longrightarrow \ell 400 : 8 = \ell 50$

Imyitozo iri ku rupapuro rwa 181 mu gitabo cy'umunyeshuri

1) Umubare wa ℓ zizahabwa buri mwana $\longrightarrow \ell 900 : 9 = \ell 1$

2) Umubare wa ℓ buri mwana azahabwa $\longrightarrow \ell 560 : 7 = \ell 80$

7.10 Gusoma umutwe

a. Inshamake y'ibikubiye muri uyu mutwe

- Gusoma, guhindura, kugereranya, guteranya no gukuramo ingero z'ibitembabuzi.
- Gukuba no kugabanya ingero z'uburemere n'umubare ushyitse.

b. Ubumenyi bw'inyongera umwarimu asabwa kugira

- Kumenya kuyobora ibikorwa byose kandi yita kuri buri munyeshuri nta we asize inyuma.
- Gusobanura ku buryo bwimbitse ibirebana n'ingero z'ibitembabuzi cyane cyane imikoreshereze yazo mu buzima busanzwe.
- Gutegura no gukoresha neza imfashanyigisho zinyuranye.
- Kumenya uko yacengeza ingingo nsanganyamasomo igihe yigisha Imibare.
- Kumenya neza imyigishirize y'Imibare ijyanye n'integanyanyigisho ishingiyeye ku bushobozi.
- Kumenya inyunguramagambo ijyanye n'ingero z'ibitembabuzi; urugero: Inusu, irobo, agakoroboyi, ibyo bapimisha ibinyobwa binyuranye.

c. Ibisubizo by'isuzuma risoza umutwe wa 7 riri ku rupapuro rwa 182 mu gitabo cy'umunyeshuri.

- 1) a) $\ell 40$ b) $\text{ml } 6\,500$ c) $\ell 75$ d) $\ell 779$
- 2) a) $\ell 79 < \text{ml } 7\,908$ c) $19 > \ell 79$
b) $\ell 27 > \ell 16$ d) $\ell 546 < 17$
- 3) $\ell 72, \ell 807, \ell 9$
- 4) $\ell 75, \ell 7\, \ell 3, \ell 3\, \text{ml } 6$
- 5) a) $\text{ml } 8\,177$ b) $\text{ml } 9\,900$ c) $\text{ml } 9\,307$ d) $\text{ml } 9\,900$
- 6) a) ℓ yandushije $\ell 950 - \ell 69 = \ell 26$
b) $1\text{ z'amavuta zikoreshwa mu minsi } 8: \ell 225 \times 8 = \ell 18$
c) Umubare wa ℓ z'amazi twasutsemo twembi: $\ell 67 + \ell 1\,330 = \ell 200$
d) Umubare wa ℓ za lisansi zizajya muri buri modoka: $\ell 7\,500 : 5 = \ell 15$
e) Umubare wa ℓ z'amata abana banywa buri muni: $\text{ml } 850 \times 5 = \ell 425$

d. Imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire n'ibisubizo byayo

- 1) Hindura izi ngero
a) $\text{l } 9 \text{ d } 9 = \text{ml}$ b) $\text{dl } 28 = \text{cl}$ c) $\text{dl } 8 \text{ ml } 6 = \text{ml}$
- 2) Tondeka uhareye ku rugero ruto ujya ku rugero runini
 $\text{l } 4, \text{dl } 76, \text{cl } 98, \text{ml } 673 \longrightarrow$
- 3) Tondeka uhareye ku rugero runini ujya ku rugero ruto
 $\text{cl } 978, \text{ml } 7456, \text{dl } 98, \text{l } 9 \longrightarrow$
- 4) Koresha $>$, $<$ na $=$ ugereranye izi ngero:
a) $\text{ml } 987 \square \text{dl } 9 \text{ ml } 8$
b) $\text{dl } 79 \square \text{cl } 856$ c) $\text{ml } 615 \square \text{dl } 6 \text{ ml } 15$
- 5) Kora
a) $\text{ml } 700 + \text{dl } 3 = \text{l } \dots$ c) $\text{cl } 25 \times 4 = \text{l } \dots$
b) $\text{l } 48 - \text{dl } 376 = \text{cl } \dots$ d) $\text{dl } 450 : 9 = \text{l } \dots$
- 6) Kora aya mahurizo:
a) Gatoni yavomye $\text{l } 15$ mu gitondo, ku manywa avoma $\text{dl } 100$ naho nimugoroba avoma $\text{cl } 1200$. Ubwo uwo munsu wose yavomye l zingahe?
b) Bahati afite $\text{l } 225$ z'amazi ashaka kvanaho $\text{dl } 1 \text{ } 987$ ngo azibumbishe amatafari. Ubwo azasigarana cl zingahe?
c) Imena yavomesheje akajerikani ka $\text{l } 10$ inshuro 10. Ubwo yavomye amazi angana iki?
d) Gabanya ku buryo bungana $\text{l } 225$ z'ubuto imiryango 5 . Buri muryango uzamuha l zingahe?

Ibisubizo by'imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire

- 1) a) $\text{ml } 9 \text{ } 090$ b) $\text{cl } 280$ c) $\text{ml } 806$
- 2) $\text{ml } 673, \text{cl } 98, \text{l } 4, \text{dl } 76$
- 3) $\text{dl } 98, \text{cl } 978, \text{l } 9, \text{ml } 7456$
- 4) a) $\text{ml } 987 > \text{dl } 9 \text{ ml } 8$ b) $\text{dl } 79 < \text{cl } 856$ c) $\text{ml } 615 = \text{dl } 6 \text{ ml } 15$
- 5) a) $\text{ml } 700 + \text{dl } 3 = \text{l } 1$ c) $\text{cl } 25 \times 4 = \text{l } 1$
b) $\text{l } 48 - \text{dl } 376 = \text{cl } 1 \text{ } 040$ d) $\text{dl } 450 : 9 = \text{l } 5$
- 6) a) Uwo munsu wose yavomye: $\text{l } 15 + \text{dl } 100 + \text{cl } 1 \text{ } 200 = \text{l } 37$
b) Azasigarana : $\text{l } 225 - \text{dl } 1 \text{ } 987 = \text{cl } 2630$
c) Yavomye: $\text{l } 10 \times 10 = \text{l } 100$
d) Buri muryango nzawuha $\longrightarrow \text{l } 225 : 5 = \text{l } 45$

e. Imyitozo y'umwihariko ihabwa abanyeshuri bagenda bihuta cyane mu myigire yabo kurusha abandi

- 1) Hindura izi ngero
a) $\text{dl } 97 \text{ ml } 78 = \text{ml } \dots$ b) $14 \text{ dl } 9 = \text{ml } \dots$ c) $19 \text{ dl } 49 = \text{dl } \dots$
- 2) Tondeka uherye ku rugero ruto ujya ku rugero runini
 $\text{dl } 79, \text{ l } 8, \text{ dl } 978, \text{ ml } 7589$
- 3) Tondeka uherye ku rugero runini ujya ku rugero ruto
 $\text{ml } 758, \text{ dl } 79, \text{ l } 9, \text{ dl } 687$
- 4) Koresha $>$, $<$ na ugereranye izi ngero:
a) $\text{l } 4 \text{ ml } 456 \square \text{ ml } 456$
b) $\text{dl } 978 \square \text{ dl } 758$ c) $\text{dl } 57 \text{ ml } 9 \square \text{ ml } 5709$
- 5) Kora:
a) $\text{ml } 6540 + \text{dl } 46 = \text{l } \dots$ c) $\text{dl } 897 \times 8 = \text{dl } \dots$
b) $\text{dl } 56 - \text{ml } 2600 = \text{dl } \dots$ d) $\text{dl } 6384 : 8 = \text{dl } \dots$
- 6) Kora aya mahurizo:
a) Ku munsu w'ubukwe bwa mushiki wange twavomye $\text{l } 676$ z'amazi yo gukoresha. Ku munsu ukurikiyeho tuvoma $\text{l } 256$ zo gusukura ibyakoreshejwe. Shaka umubare wa $\text{l } z'amazi$ twavomye muri iyo minsi ibiri.
b) Uwamahoro yavanye $\text{dl } 4678$ z'amazi mu kigega kirimo 1500 z'amazi. Ubwo muri icyo kigega hasigayemo $\text{dl } zingahe$ z'amazi ?
c) Shaka umubare wa $\text{l } z'amazi$ Mugisha yavomye niba yaravomye inshuro 19 kandi avomesha ijerikani rya $\text{l } 20$.
d) Gabanya ku buryo bungana $\text{l } 975$ z'umutobe mu macupa ajyamo $\text{l } 5$ rimwe rimwe. Uzawushyira mu macupa anagahe ?

Ibisubizo by'imyitozo y'umwihariko ihabwa abanyeshuri bagenda bihuta cyane mu myigire yabo kurusha abandi

- 1) a) $\text{ml } 9778$ b) $\text{ml } 4090$ c) $\text{dl } 949$
- 2) $\text{ml } 7589, \text{ dl } 79, \text{ l } 8, \text{ dl } 978$
- 3) $\text{l } 9, \text{ dl } 79, \text{ dl } 687, \text{ ml } 758$
- 4) a) $\text{l } 4 \text{ ml } 456 > \text{ml } 456$ b) $\text{dl } 978 = \text{dl } 758$ c) $\text{dl } 57 \text{ ml } 9 = \text{ml } 5709$
- 5) a) $\text{ml } 6540 + \text{dl } 46 = \text{l } 7$ c) $\text{dl } 897 \times 8 = \text{dl } 7176$
b) $\text{dl } 56 - \text{ml } 2600 = \text{dl } 300$ d) $\text{dl } 6384 : 8 = \text{dl } 798$
- 6) a) Muri iyo minsi ibiri twavomye: $\text{l } 676 + \text{dl } 2560 = \text{l } 932$
b) Muri icyo kigega hasigayemo: $\text{l } 500 - \text{dl } 4678 = \text{dl } 3220$
c) Umubare wa $\text{l } z'amazi$ Mugisha yavomye: $\text{l } 20 \times 19 = \text{l } 380$
d) Uzawushyira mu macupa $\text{l } 975 : 5 = 195$

Umutwe wa 8: Amafaranga y'u Rwanda kuva ku F 1 kugera ku F 5 000

8.1 Ubushobozi bw'ingenzi bugamijwe

Gukoresha neza amafaranga y'u Rwanda atarengeje F 5 000.

8.2 Ibyizwe mbere bifitanye isano n'uyu mutwe

Amafaranga y'u Rwanda kuva ku F 1 kugera ku F 1 000.

8.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho

- *Ubwuzuzanye bw'ibitsina byombi* mu gukora imyitozo nta vangura.
- *Umuco w'ubuziranenge* ugaragarira mu kumenya agaciro k'amafaranga y'u Rwanda bityo umunyeshuri akaba yabasha kwirinda ko bamujijisha mu buzima busanzwe.
- *Uburezi budahera* mu gihe adahutaza abo bigana bafite n'ubumuga cyangwa imbogamizi mu myigire yabo.
- *Umuco w'amahoro* mu gihe akorana na bagenzi be mu bwumvikane nta we abangamiye.
- *Umuco wo gukoresha neza umutungo* igihe afata neza amafaranga yirinda ko hari ayapfa ubusa bitewe no kuyata cyangwa kuyandarika ndetse yirinda kugura ibitamufitiye akamaro.

8.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe

- *Kwitegereza* agasobanura ibyo yitegereje.
- *Gushyikirana n'abandi* igihe akorera mu matsinda cyangwa afatanyaga n'abandi.
- *Gukoresha imvugo isobanutse* igihe yandika cyangwa asoma amafaranga.
- *Gushishoza* mu gihe agererenyaga amafaranga afite agaciro gatandukanye.
- *Kugira amashyushyu* yo guhora yiyungura ubumenyi mu mibare.
- *Kwikemurira ibibazo* mu gihe akoresha neza amafaranga mu buzima busanzwe.

8.5 Amagambo umunyeshuri yunguka muri uyu mutwe

Ibiceri: amafaranga atari inoti akozwe mu byuma bitandukanye.

Inoti: amafaranga akoze ku mpapuro zihariye afite ibiyaranga.

Kuvunja: kugurana amafaranga ayandi bihwanyije agaciro.

Kugaruza: gusaba amafaranga asigara ku giciro waguze ibintu iyo wishyuye menshi.

Kubitsa: kuzigama amafaranga.

Kubikuza: kuja kuzana amafaranga aho wayabikije

Kuzigama: kwiteganyiriza wirinda gupfusha ubusa

Gusesagura: gupfusha ubusa cyangwa kwangiza umutungo mu bintu bitari ngombwa.

Gukatuza: kugabanyisha amafaranga ku giciro iyo ugiye kugura ibintu.

Umuguzi: umuntu ugura ibintu binyuranye.

Umucuruzi: umuntu ufite umwuga wo kugurisha ibintu.

Ibicuruzwa: ibintu byose bacuruza.

8.6 Uburyo bwo gusesengura ikibazo nyamukuru

- Umwarimu asomesha agakuru kajyanye n'ikibazo cy'umugabo utazi gutandukanya agaciro k'inoti zigize amafaranga y'u Rwanda.
- Asaba abanyeshuri kukaganiraho no kugatangaho ibitekerezo bagaragaza uko bamufasha gukemura icyo kibazo bifashishije ubumenyi bafite mu mibare.
- Abasobanurira ko ibisubizo nyabyo bazajya babibona mu masomo bagiye kwiga muri uyu mutwe.

8.7 Uko umwarimu yita by'umwihariko ku bafite ibibazo byihariye yigisha uyu mutwe

- Abafata bitinze bategurire imyitozo usanga mu gitabo cy'umwarimu; yoroshye ugereranyije n'iy'abandi.
- Abafite ubumuga bw'ingingo banza umenye izo ari zo ubategurire imfashanyigisho zihariye n'imyitozo wagenera buri wese.
- Abafite impano yo kumva no gukora vuba cyane bahe imyitozo usanga mu gitabo cy'umwarimu, ituma batarangaza abandi.

8.8 Ibyigwa biri muri uyu mutwe

	Ibyigwa	Umubare w'amasomo: 10
1	Ibiranga amafaranga y'u Rwanda n'akamaro kayo	1
2	Kuvunja amafaranga kuva ku F1 kugera ku F 5 000	1
3	Guteranya amafaranga kuva ku F1 kugera ku F 5 000	1
4	Gukuramo amafaranga kuva ku F1 kugera ku F 5 000	1
5	Gukuba amafaranga kuva ku F1 kugera ku F 5 000	1
6	Kugabanya amafaranga kuva ku F1 kugera ku F 5 000	1
7	Kugura no kugurisha	1
8	Akamaro ko kuzigama	1
9	Udushinga duciriritse	1
10	Isuzuma risoza umutwe	1

8.9 Imyigishirize ya buri kigwa

8.9.1 Ikigwa cya mbere: Ibiranga amafaranga y'u Rwanda n'akamaro kayo (Isomo 1)

a. Intego

Ubumenyi

Gutandukanya no kugaragaza agaciro k' amafaranga y'u Rwanda kugera ku F 5 000.

Ubumenyingiro

Kubara amafaranga y'u Rwanda atarenze 5 000.

Ubukeshya

Kugaragaza umuco w'ubunyangamugayo mu gukoresha amafaranga.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo y'isubiramo ku mafaranga atarenze F 1 000.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishye bitegereza ibiranga amafaranga y'u Rwanda.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Amafanga y'ibiceri n'inoti
- Ibishushanyo by'amafanga kuva ku F 1 kugera ku F 5000.

d. Ibikorwa by'imyigire n'imyigishirize

- Kuyobora abanyeshuri bakitegereza ibiceri n'inoti bigize amafanga y'u Rwanda.
- Gushyira ibiceri n'inoti bigize amafanga y'u Rwanda mu gakarito maze ukajya wohera umunyeshuri umwumwe agafata agatombora inoti imwe n'igiceri kimwe hanyuma akavuga ibiranga buri kimwe, icyo bihuriyeho n'icyo bitandukaniyeho.

e. Ikomatany ry'ibyzwe

Kuyobora abanyeshuri mu kuvuga muri make ibiranga amafanga y'u Rwanda.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 187 mu gitabo cy'umunyeshuri yo kuvuga ibiranga amafanga y'u Rwanda.

8.9.2 Ikigwa cya kabiri: Kuvunja amafaranga kuva ku F 1 kugera ku F 5 000 (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa agaciro k'amafaranga y'u Rwanda kugera ku F 5 000.

Ubumenyigiro

Kuvunja amafaranga y'u Rwanda kugera ku F 5 000.

Ubukasha

Kurangwa n'ubunyamugayo mu gukoresha neza amafaranga.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo amafaranga y'u Rwanda kugera ku F 1 000 .
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe bavunja amafaranga y'u Rwanda.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Amafaranga y'ibiceri n'inoti.
- Ibishushanyo by'amafaranga kuva ku F 1 kugera ku F 5 000.

d. Ibikorwa by'imyigire n'imyigishirize

- Kwifashisha inoti n'ibiceri bigize amafaranga y'u Rwanda mu gukoresha imyitozo yo kuvunja amafaranga kuva ku F 1 kugera ku F 5 000.
- Gushyira ibiceri n'inoti bigize amafaranga y'u Rwanda kuva ku F 1 kugera ku F 5 000 mu gakarito maze ukajya uha umunyeshuri umwumwe inoti imwe cyangwa igiceri kimwe ukamusaba kujya kwivunjira akoresheje amafaranga ari muri kagakarito hanyuma ayo yivunjiye akayakuzanira ukareba ko ari yo.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bavunja amafaranga y'u Rwanda.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 189 na 190 mu gitabo cy'umunyeshuri yo kuvunja amafaranga y'u Rwanda.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Kuvunja amafaranga y'u Rwanda

Imyitozo iri ku rupapuro rwa 189 – 190 mu gitabo cy'umunyeshuri

- 1) a) $F\ 1\ 000 = F\ 500 + F\ 500$
b) $F\ 2\ 000 = F\ 1\ 000 + F\ 1000$
c) $F\ 5\ 000 = F\ 1\ 000 + F\ 1\ 000 + F\ 1\ 000 + F\ 1\ 000$

- 2) a) $F\ 2\ 000 = F\ 1\ 000 + F\ 1\ 000$
b) $F\ 5\ 000 = F\ 2\ 000 + F\ 1\ 000 + F\ 2\ 000$
c) $F\ 1\ 000 = F\ 500 + F\ 500$
d) $F\ 5\ 000 = F\ 500 + F\ 500 + F\ 500 + F\ 500 + F\ 500 + F\ 500 + F\ 500 + F\ 500 + F\ 500$
e) $F\ 500 = F\ 100 + F\ 100 + F\ 100 + F\ 100 + F\ 100$
- 3) a) $F\ 3\ 000 = F\ 1\ 000 + F\ 1\ 000 + F\ 1\ 000$
b) $F\ 4\ 000 = F\ 2\ 000 + F\ 1\ 000 + F\ 500 + F\ 500$
c) $F\ 2\ 000 = F\ 1\ 000 + F\ 500 + F\ 500$
d) $F\ 5\ 000 = F\ 1\ 000 + F\ 2\ 000 + F\ 1\ 000 + F\ 1\ 000$
e) $F\ 3\ 500 = F\ 2\ 000 + F\ 500 + F\ 1\ 000$

Amahurizo yo kuvunja amafaranga y'u Rwanda

Nsuzuma ngusuzume iri ku rupapuro rwa 191 mu gitabo cy'umunyeshuri

- 1) F 9 000 2) F 2 500

Reka nisuzume iri ku rupapuro rwa 191 mu gitabo cy’umunyeshuri

- 1) F 5 000 2) F 4 400

Ibisubizo by'imyitozo iri ku rupapuro rwa 192 mu gitabo cy'umunyeshuri

- 1) F 5 500 2) F 5 000.

Nsuzuma ngusuzume iri ku rupapuro rwa 192 mu gitabo cy’umunyeshuri

- Inoti 1 ya F 1 000 n'ibiceri 2 bya F 100
- Inoti ya F 500, n' ibiceri 4 bya F 100
- Inoti 3 za F 500 n'ibiceri 3 bya F 100
- Inoti 2 za F 2 000 n'inoti ya F 500
- Inoti 2 za F 1 000 n'ibiceri 5 bya F 100
- Inoti 1 ya F 2 000, inoti 3 za F 500.

8.9.3 Ikigwa cya gatatu: Amahurizo yo guteranya amafaranga kuva ku F 1 kugera ku F 5 000 (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko bateranya amafaranga y'u Rwanda.

Ubumenyingiro

Guteranya amafaranga y'u Rwanda.

Ubukesh

Kugaragaza akamaro ko guteranya neza ukoresha amafaranga mu buzima busanzwe.

b. Imyitozo y'isubiramo Intangiriro

- Imyitozo inyuranye yo guteranya amafaranga.
- Guha abanyeshuri imfashanyigisho baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Amafaranga y'ibiceri n'inoti.
- Ibishushanyo by'amafaranga kuva ku F 1 kugera ku F 5000.

d. Ibikorwa by'imyigire n'imyigishirize

Hereza abanyeshuri ihurizo ry'urugero ryo guteranya amafaranga kuva ku F 1 kugera ku F 5 000, nurangiza ubahe umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatany ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bateranya amafaranga y'u Rwanda atarenga F 5 000.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 193 mu gitabo cy'umunyeshuri yo guteranya amafaranga y'u Rwanda.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Amahurizo yo guteranya amafaranga y'u Rwanda

Nsuzuma ngusuzume iri ku rupapuro rwa 192 mu gitabo cy'umunyeshuri

- 1) Yari yishyuye F 2 000
- 2) Yabiguze F 3 500 + F 900 = F 4 400

Reka nisuzume iri ku rupapuro rwa 193 mu gitabo cy'umunyeshuri

- 1) Bose yabahaye F 750 + F 1 450 + F 1 150 + F 950 = F 4 300
- 2) Babiguze F 1 500 + F 500 + F 2 000 + F 4 100 = F 5 000

Ibisubizo by'imyitozo iri ku rupapuro rwa 193 mu gitabo cy'umunyeshuri

- 1) F 3 470
- 2) Byose bigura F 1 200 + F 500 + F 800 = F 2 500
- 3) F 4 700.

8.9.4 Ikigwa cya kane: Gukuramo amafaranga kuva ku F1 kugera ku F 5 000 (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko bakuramo amafaranga y'u Rwanda.

Ubumenyigiro

- Gukuramo amafaranga y'u Rwanda Ubukeshya;
- Kugaragaza akamaro ko gukuramo neza ukoresha amafaranga mu buzima busanzwe.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gukuramo amafaranga.
- Guha abanyeshuri imfashanyigisho baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Amafaraanga y'ibiceri n'inoti.
- Ibishushanyo by'amafaraanga kuva ku F 1 kugera ku F 5000.
- Ibishushanyo biriho udukino two kugura no kugurisha.

d. Ibikorwa by'imyigire n'imyigishirize

Hereza abanyeshuri ihurizo ry'urugero ryo gukuramo amafaranga kuva ku F 1 kugera ku F 5 000 nurangiza ubahe umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

d. Ikomatanywa ry'ibyzwe

Kuyobora abanyeshuri mu kuvuga muri make uko bakuramo amafaranga y'u Rwanda atarenga F 5 000.

e. Isuzuma

Guha abanyeshuri imyitozo iri mu gitabo cy'umunyeshuri yo gukuramo amafaranga y'u Rwanda.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Amahurizo yo gukuramo amafaranga y'u Rwanda

Nsuzuma ngusuzume iri ku rupapuro rwa 194 mu gitabo cy'umunyeshuri

- 1) Yabiguze F 850, bamugaruriye F 150
- 2) Arabura F 500

Reka nisuzume iri ku rupapuro rwa 194 mu gitabo cy’umunyeshuri

- 1) Yayiguze: F 4 100
- 2) Nasigaranye: F 4 500 – F 3 900 = F 600

Ibisubizo by’imyitozo iri ku rupapuro rwa 195 mu gitabo cy’umunyeshuri

- 1) Bamugaruriye: F 5 000 – F 3 750 = F 1 250
- 2) Nasigaranye: F 5 000 – F 3 900 = F 1 100

8.9.5 Ikigwa cya gatanu: Amahurizo yo gukuba amafaranga kuva ku F1 kugera ku F 5 000 n’umubare ushyitse. (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko bakuba amafaranga y’u Rwanda n’umubare ushyitse.

Ubumenyigiro

Gukuba amafaranga y’u Rwanda n’umubare ushyitse.

Ubukeshya

Kugaragaza akamaro ko gukuba neza ukoresha amafaranga mu buzima busanzwe

b. Imyitozo y’isubiramo /Intangiriro

- Imyitozo inyuranye yo gukuba amafaranga n’umubare ushyitse.
- Guha abanyeshuri imfashanyigisho baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Amafaranga y’ibiceri n’inoti
- Ibishushanyo by’amafaranga kuva ku F 1 kugera ku F 5 000
- Ibishushanyo biriho udukino two kugura no kugurisha

d. Ibikorwa by’imyigire n’imyigishirize

Hereza abanyeshuri ihurizo ry’urugero ryo gukuba amafaranga kuva ku F 1 kugera ku F 5 000 nurangiza ubahe umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanya ry’ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bakuba amafaranga y’u Rwanda atarenga F 5 000 n’umubare ushyitse.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 196 mu gitabo cy’umunyeshuri yo gukuba amafaranga y’u Rwanda atarenga F 5 000 n’umubare ushyitse.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Amahurizo yo gukuba amafaranga y'u Rwanda

Nsuzuma ngusuzume iri ku rupapuro rwa 195 mu gitabo cy'umunyeshuri

- 1) a) F 600 b) F 3 600 c) F 4 000 d) F 5 000
2) $F 85 \times 27 = F 2\,040$

Reka nisuzume iri ku rupapuro rwa 196 mu gitabo cy'umunyeshuri

- 1) $F 80 \times 119$
2) $F 250 \times 8 = F 2\,000$ 3) $(F 1\,400 \times 3) + F 800 = F 5\,000$

Ibisubizo by'imyitozo iri ku rupapuro rwa 196 mu gitabo cy'umunyeshuri

- 1) F 9 600 2) F 4 200 3) F 4 500

8.9.6 Ikigwa cya gatandatu: Amahurizo yo kugabanya amafaranga kuva ku F1 kugera ku F 5 000 n'umubare ushyitse. (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko bagabanya amafaranga y'u Rwanda n'umubare ushyitse.

Ubumenyigiro

Kugabanya amafaranga y'u Rwanda n'umubare ushyitse.

Ubukeshya

Kugaragaza akamaro ko kugabanya neza ukoresha amafaranga mu buzima busanzwe.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo kugabanya amafaranga n'umubare ushyitse.
- Guha abanyeshuri imfashanyigisho baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Amafaranga y'ibiceri n'inoti.
- Ibishushanyo by'amafaranga kuva ku F 1 kugera ku F 5 000.
- Ibishushanyo biriho udukino two kugura no kugurisha.

d. Ibikorwa by'imyigire n'imyigishirize

Hereza abanyeshuri ihurizo ry'urugero ryo kugabanya amafaranga kuva ku F 1 kugera ku F 5 000, nurangiza ubahe umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bagabanya amafaranga y'u Rwanda atarenga F 5 000 n'umubare ushyitse.

e. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 197 mu gitabo cy'umunyeshuri yo kugabanya amafaranga y'u Rwanda atarenga F 5 000 n'umubare ushyitse.

8.9.7 Ikigwa cya karindwi: Kugura no kugurisha (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko bagura n'uko bagurisha.

Ubumenyigiro

Kubasha kugura cyangwa kugurisha ibintu bitagoye kandi amafaranga atarenga F 1 000.

Ubukeshya

Kugaragaza umuco wo kugura ibyo umuntu akeneye akurikije amikoro ye.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo kugura no kugurisha.
- Guha abanyeshuri imfashanyigisho baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo

c. Imfashanyigisho

- Amafaraanga y'ibiceri n'inoti
- Ibishushanyo by'amafaraanga kuva ku F 1 kugera ku F 5 000
- Ibishushanyo biriho udukino two kugura no kugurisha

d. Ibikorwa by'imyigire n'imyigire

- Shyira ibicuruzwa byanditseho ibiciro byabyo ku meza maze uhashyire umunyeshuri uzajya wakira amafaraanga, uge uha amafaraanga umunyeshuri umwumwe age kugura icyo yihitiyemo kandi ukore ku buryo icyo aguze bamugarurira hanyuma yava kukigura akakubwira ayo yakiguze n'ayo bamugaruriye.
- Saba abanyeshuri kujya bibuka gukora urutonde rw'ibyo bagura mbere yo kubigura, kubaza igiciro, kugura ikintu babanje kureba ko kitarengeje igihe ndetse bakibuka no kugaruza iyo ari ngombwa.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bagomba kugura ibintu binyuranye n'uko babigurisha.

f. Isuzuma

Guha abanyeshuri igikorwa kiri ku rupapuro rwa 198 mu gitabo cy'umunyeshuri yo kugura no kugurisha.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Kugura no kugurisha.

Igikorwa cyo ku rupapuro rwa 198 mu gitabo cy'umunyeshuri

- 1) $F 800 \times 5 = F 4 000$
- 2) $(F 2 000 \times 3) + F 1 200 = F 7 200$
- 3) $(F 1 200 \times 2) + (4 \times F 500) = F 4 400$
- 4) $F 2 500 + (4 \times F 500) = F 1 000 = F 5 500$
- 5) $(F 800 \times 3) + F 1 200 + F 1 200 = F 4 800$

8.9.8 Ikigwa cya munani: Akamaro ko kuzigama (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa akamaro ko kuzigama.

Ubumenyigiro

Kubasha gusobanura akamaro ko kuzigama.

Ubukasha

Kugaragaza umuco wo kuzigama mu buzima busanzwe.

b. Imyitozo Intangiriro

Guha abanyeshuri umwanya wo kuganira mu matsinda ku kamaro ko kuzigama.

c. Imfashanyigisho

Impapuro bandikaho ibitekerezo byabo n'ibyo bandikisha.

d. Ibikorwa by'imyigire n'imyigishirize

- Somesha abanyeshuri inkuru iri mu bitabo byabo hanyuma ubashyira mu matsinda basubize ibibazo ku nkuru.
- Yobora abanyeshuri mu kiganiro hagati yabo kivuga ku kamaro ko kuzigama, uburyo umuryango wa buri munyeshuri wizigamira ndetse n'uburyo bagiye kujya bizigamira.

e. Ikomatanya ry'ibyzwe

Kuyobora abanyeshuri mu kuvuga muri make akamaro ko kuzigama mu buzima bwa buri munsu.

f. Isuzuma

Guha abanyeshuri igikorwa cya 3 kiri ku rupapuro rwa 200 mu gitabo cy'umunyeshuri ku kamaro ko kuzigama.

g. Ibisubizo by'imyitoto n'ibikorwa bijyanye n'iki kigwa

Akamaro ko kuzigama

Igikorwa cya 1 ku rupapuro rwa 197 – 198 mu gitabo cy'umunyeshuri

- 1) 2
- 2) Ni ayo bamuhembye yakoze imibare neza.
- 3) Umwaka 1
- 4) Bagurishije amasake ye
- 5) Yabahaye amafaranga yo kwiyondora
- 6) Iryo kwizigamira.
- 7) na 8 ibisubizo biratandukanyije bitewe n'ibyo buri munyeshuri azasubiza.

8.9.9 Ikigwa cya kenda: Gukora udushinga duciriritse (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa uko bakora udushinga duciriritse n'akamaro katwo.

Ubumenyigiro

Kubasha kwitegurira no gukora agashinga gaciriritse kari ku rwego rwe.

Ubukeshya

Kugaragaza akamaro k'udushinga duciriritse mu buzima bwa buri muni.

b. Intangiriro/Isubiramo

- Gusaba abanyeshuri kuganira ku dushinga abana bakora.
- Kubaha umwanya wo ku byunguranaho ibitekerezo.

c. Imfashanyigisho

- Amafaranga y'ibiceri n'inoti.
- Ibishushanyo by'amafaranga kuva ku F 1 kugera ku F 5000.
- Ibishushanyo bigaragaza akamaro ko kuzigama no gukora udushinga duciriritse.

d. Ibikorwa by'imyigire n'imyigishirize

- Somesha abanyeshuri ingero z'udushinga turi mu bitabo byabo hanyuma ubashyira mu matsinda baganire kuri buri mushinga.
- Yobora abanyeshuri mu kiganiro hagati yabo kivuga ku ngero z'udushinga bigeze gukora tukababyarira inyungu cyangwa igihombo hanyuma abahombye ubasabobanurire impamvu bahombe n'uburyo bakwiye kujya birinda bene icyo gihombo giterwa.
- Saba buri munyeshuri gusobanura agashinga agiye gukora, uko azagacunga ndetse n'inyungu yiteze kuri ako gashinga.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make bategura kandi bagakora agashinga gaciriritse.

f. Isuzuma

Guha abanyeshuri Nsuzuma ngusuzume iri ku rupapuro rwa 200 mu gitabo cy'umunyeshuri ku dushinga duciriritse.

8.10.Gusoza umutwe

a. Inshamake y'ibikubiye muri uyu mutwe

- Uko wabara neza amafaranga utibeshya.
- Gusobanura neza uko bakora itonde ry'ibigomba kugurwa hakurikijwe amafaranga bafite.
- Uko bagura badahenzwe kandi bakagura ibyujije ubuziranenge.
- Uko wagurisha udahomba.
- Uko wategura kandi ugakora agashinga gaciriritse.

b. Ubumenyi bw'inyongera umwarimu asabwa kugira

- Kumenya kuyobora ibikorwa byose kandi yita kuri buri munyeshuri nta we asize inyuma.
- Gusobanura ku buryo bwimbitse ibirebana n'igura n'igurishwa cyane imikoreshereze y'amafaranga mu buzima busanzwe.
- Gutegura no gukoresha neza imfashanyigisho zinyuranye.
- Kumenya uko yacengeza ingingo nsanganyamasomo igihe yigisha Imibare.
- Kumenya neza imyigishirize y'Imibare ijyanye n'integanyanyigisho ishingiyeye ku bushobozi.
- Kumenya inyunguramagambo ijyanye n'igura n'igurishwa.
- Kumenya agaciro k'amadovize.
- Kumenya ubundi buryo. umuntu yakoresha agura ibintu nk'amakarita, telefoni ...
- Kumenya uburyo bunyuranye bwo kugurisha ibintu.
- Kumenya udushinga duciriritse twose abana bashobora gukora.

c. Ibisubizo by'isuzuma risoza umutwe wa 8 riri ku rupapuro rwa 201 mu gitabo cy'umunyeshuri

- 1) a) $F\ 5\ 000 = F\ 2\ 000 + F\ 2\ 000 + \text{Inoti } 2 \text{ za } F\ 500$
b) $F\ 2\ 000 = (F\ 100 \times 10) + F\ 1\ 000$
- 2) a) $F\ 3\ 500$ b) Arabura $F\ 2\ 400$ c) $F\ 5\ 000$ d) $F\ 2\ 500$
- 3) Uzamuha $F\ 1\ 200$
- 4) $F\ 1500$.

d. Imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire yabo

1) Uzuza

a) $F\ 5\ 000 = F\ \dots + F\ \dots$ b) $F\ 2\ 000 = F\ \dots + F\ \dots$

c) $F\ 1\ 000 = F\ \dots + F\ \dots$ d) $F\ 5\ 000 = F\ \dots + F\ \dots$

2) Makuza bamuhaye $F\ 2\ 000$ ayaguramo inyanya ku $F\ 500$, ibitunguru bya $F\ 200$ n'umuceri wa $F\ 1\ 000$. Byose hamwe yabiguzze F angahe? Bamugaruriye Fangahe?

3) Gabanya ku buryo bungana $F\ 500$ abana 5. Buri mwana uzamuha F angahe?

4) Munezero yaguze $kg\ 2$ z'isukari ku $F\ 1200$ kg imwe na $kg\ 2$ z'umuceri ku $F\ 1\ 000$ kg imwe. Byose hamwe yabiguzze F angahe? Niba yari afite $F\ 5\ 000$ ubwo bamugaruriye F angahe?

5) Masabo yaguze ikaramu 4 ku $F\ 100$ imwe imwe n'amakayi 5 ku $F\ 200$ imwe imwe. Niba yari afite $F\ 2\ 000$, byose hamwe yabiguzze F angahe? Ese bamugaruriye F angahe?

e. Ibisubizo by'imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire yabo

1) Uzuza

a) $F\ 5\ 000 = F\ 4\ 000 + F\ 1\ 000$ c) $F\ 1\ 000 = F\ 500 + F\ 500$

b) $F\ 2\ 000 = F\ 1\ 500 + F\ 500$ d) $F\ 5\ 000 = F\ 3\ 000 + F\ 2\ 000$

2) Byose hamwe yabiguzze: $F\ 500 + F\ 200 + F\ 1\ 000 = F\ 1\ 700$

Bamugaruriye: $F\ 2\ 000 - F\ 1\ 700 = F\ 300$

3) Buri mwana nzamuha $\longrightarrow F\ 500 : 5 = F\ 100$

4) Byose hamwe yabiguzze $(F\ 1\ 200 \times 2) + (F\ 1\ 000 \times 2) = F\ 4\ 400$

Bamugaruriye: $F\ 5\ 000 - F\ 4\ 400 = F\ 600$

5) Byose hamwe yabiguzze: $(F\ 100 \times 4) + (F\ 200 \times 5) = F\ 1\ 400$

Bamugaruriye: $F\ 2\ 000 - F\ 1\ 400 = F\ 600$.

f. Imyitozo y'umwihariko ihabwa abanyeshuri bihuta cyane mu myigire kurusha abandi n'ibisubizo byayo

1) Uzuza

a) $F\ 5\ 000 = F\ \dots + F\ \dots + F\ \dots$ c) $F\ 1\ 000 = F\ \dots + F\ \dots$

b) $F\ 2\ 000 = F\ \dots + F\ \dots + F\ \dots$ d) $F\ 5\ 000 = F\ \dots + F\ \dots + F\ \dots + F\ \dots$

2) Muhoza bamuhaye $F\ 5\ 000$ ayaguramo inyama ku $F\ 3500$, ibirungo bya $F\ 500$ n'umuceri wa $F\ 800$. Byose hamwe yabiguzze F angahe? Bamugaruriye F angahe?

3) Gabanya ku buryo bungana $F\ 8\ 000$ abakozi 4. Buri mukozzi uzamuha F angahe?

- 4) Kaneza yaguze kg 5 z'isukari ku F 1200 kg imwe na kg 3 z'umuceri ku F 1000 kg imwe. Byose hamwe yabiguze F angahe ? Niba yari afite F 10000 ubwo bamugaruriye F angahe ?
- 5) Nagiye guhaha mfite F 10 000 ngura ibintu bikurikira :
- | | |
|---|----------------------------------|
| a) $\text{L} 2 \text{ z'amata}$ ku F 400 $\text{L} 1$ | d) kg 2 z'umuceri ku F 1200 kg 1 |
| b) $\text{L} 1 \text{ y'amavuta}$ ku F 1800 | e) kg 2 z'isukari ku F 1200 kg 1 |
| c) kg 2 z'ibishyimbo ku F 700 kg 1 | f) kg 2 z'ibirayi ku F 300 kg 1 |
- Byose hamwe nabiguze F angahe ? Nasigaranye F angahe?

g) Ibisubizo by'imyitozo y'umwihariko ihabwa abanyeshuri bihuta cyane mu myigire kurusha abandi

- 1) Uzuza:
- $F 5\ 000 = F 2\ 000 + F 2\ 000 + F 1\ 000$
 - $F 2\ 000 = F 1000 + F 500 + F 500$
 - $F 1\ 000 = F 500 + F 500$
 - $F 5\ 000 = F 2\ 000 + F 2\ 000 + F 500 + F 500$
- 2) Byose hamwe yabiguze: $F 3\ 500 + F 500 + F 800 = F 4\ 800$
 Bamugaruriye: $F 5\ 000 - F 4\ 800 = F 200$
- 3) Buri mukozi uzamuha $\longrightarrow F 8\ 000 : 4 = F 2\ 000$
- 4) Byose hamwe yabiguze $= (F1\ 200 \times 5) + (F 1000 \times 3) = F 9\ 000$
 Bamugaruriye : $F 10\ 000 - F 9\ 000 = F 1\ 000$
- 5) Byose hamwe nabiguze: $(2 \times 400F) + F 1\ 800 + (F 700 \times 2) + (2 \times F1\ 200) + (2 \times F1\ 200) + (2 \times F 300) = F 9\ 400$
 Nasigaranye : $F 10\ 000 + F 9\ 400 = F 600$

Umutwe wa 9: Ingero z'igihe

9.1 Ubushobozi bw'ingenzi bugamijwe

Gupima no kwandika isaha yuzuye, irengaho cyangwa ibura iminota 15, irengaho cyangwa ibura iminota 30 no gukoresha neza indangaminsi

9.2 Ibyizwe mbere bifatanywe isano n'uyu mutwe

Isaha, amezi y'umwaka n'iminsi ya buri kwezi.

9.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho

- *Umuco w'ubuziranenge* mu gihe asoma ingero z'igihe atajijwa bityo akaba yabasha gutahura isaha ikora n'idakora.
- *Umuco wo gukoresha neza umutungo* igihe akoresha isaha yirinda ko yameneka; gukoresha neza igihe no kugena gahunda y'ibikorwa.

9.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe

- *Gushyikirana n'abandi* igihe akorera mu matsinda cyangwa afatany n'abandi.
- *Kugira amashyushyu* yo guhora yiyungura ubumenyi ku ngero z'igihe.
- *Kwikemurira ibibazo* mu gihe akoresha neza ingero z'igihe mu buzima busanzwe.

9.5 Amagambo umunyeshuri yunguka muri uyu mutwe

Umwaka usanzwe: ni umwaka ufite iminsi 365

Umwaka udasanzwe: ni ugizwe n'iminsi 366

Indangaminsi: igikoreshe cyanditseho amezi yose y'umwaka n'iminsi n'ibyumweru bya buri kwezi hariho n'amatariki ya buri munsu

9.6 Uburyo bwo gusesengura ikibazo nyamukuru

- Umwarimu asomesha agakuru kajyanye n'ikibazo cy'umuntu utazi igihe agomba gutekera abakoresha be ndetse n'igihe agomba guhemberwa.
- Asaba abanyeshuri kukaganiraho no kugatangaho ibitekerezo bagaragaza icyo bamufasha ngo kugira ubushobozi bwo gukora akazi ke neza.
- Abasobanurira ko ibisubizo nyabyo bazajya babibona mu masomo bagiyeye kwiga muri uyu mutwe.

9.7 Uko umwarimu yita by'umwihariko ku bafite ibibazo byihariye yigisha uyu mutwe

- Abafata bitinze bategurire imyitozo usanga mu gitabo cy'umwarimu; yoroshye ugereranyije n'iy'abandi.
- Abafite ubumuga bw'ingingo banza umenye izo ari zo ubategurire imfashanyigisho zihariye n'imyitozo wagenera buri wese.

- Abafite impano yo kumva no gukora vuba cyane bahe imyitozo usanga mu gitabo cy’umwarimu, ituma batarangaza abandi.

9.8 Ibyigwa biri muri uyu mutwe

	Ibyigwa	Umubare w’amasomo: 8
1	Gusoma, kuvuga no kwandika igihe kerekanwa n’isaha	8
2	Gukoresha indangaminsi	6
3	Gukora gahunda y’ibikorwa	2
4	Isuzuma risoza umutwe	2

9.9 Imyigishirize ya buri kigwa

9.9.1 Ikigwa cya mbere: Gusoma, kuvuga no kwandika igihe kerekanwa n’isaha (Amasomo 8)

a. Intego

Ubumenyi

Gusobanukirwa uko basoma, bavuga kandi bandika igihe kerekanwe ku isaha.

Ubumenyigiro

Gusoma , kuvuga no kwandika igihe kerekanwe ku isaha.

Ubukeshya

Kubahiriza igihe ukoresheje isaha.

b. Imyitozo y’isubiramo /Intangiriro

- Imyitozo inyuranye yo gusoma, kuvuga no kwandika igihe kerekanwe n’isaha.
- Guha abanyeshuri iimfashanyigisho zihagije bari bwifashishe basoma igihe ku masaha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Amasaha y’imibare n’ay’inshinge.
- Ibishushanyo bishushanyijeho amasaha anyuranye byo gukoresha basoma cyangwa bandika igihe kerekanwe.

d. Ibikorwa by’imyigire n’imyigishirize

- Kwereka abanyeshuri amasaha atandukanye ay’imibare n’ay’inshinge hanyuma bakavuga igihe kerekanwe kuri buri saha.
- Gusaba abanyeshuri kugaragaza itandukaniro iri hagati y’isaha yuzuye, irengaho iminota 30, ibura iminota 30, irengaho iminota 15 n’ibura iminota 15.
- Kwandika igihe ku kibaho maze buri munyeshuri agashushanya isaha y’inshinge n’iy’imibare byerekanwe n’iyo saha yanditswe ku kibaho.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko basoma, bavuga kandi bandika igihe kerekanwa n'isaha batibeshya.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 211 mu gitabo cy'umunyeshuri yo gusoma. kuvuga no kwandika igihe kerekanwa n'isaha.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

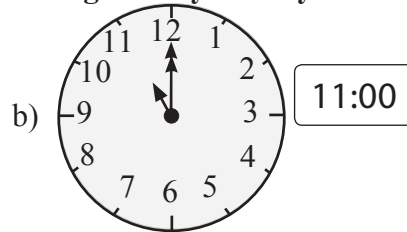
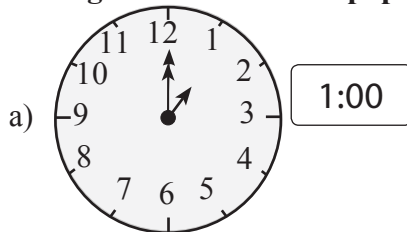
Gusoma ukavuga igihe kerakanwa n'isaha

Isaha yuzuye

Igikorwa kiri ku rupapuro rwa 202 mu gitabo cy'umunyeshuri

- | | | |
|--------------|-------------|--------------|
| a) Saa moya | c) Saa tatu | e) Saa mbiri |
| b) Saa mbiri | d) Saa moya | f) Saa tatu |

Nsuzuma ngusuzume iri ku rupapuro rwa 203 mu gitabo cy'umunyeshuri



Imyitozo iri ku rupapuro rwa 203 mu gitabo cy'umunyeshuri

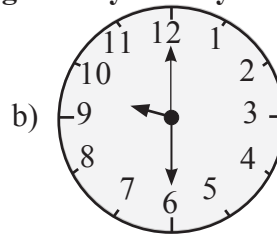
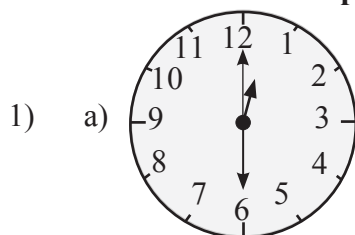
- | | | |
|---------------|---------------|--------------|
| a) Saa munani | c) Saa kumi | e) Saa kenda |
| b) Saa kenda | d) Saa munani | f) Saa kumi |

Isaha irengaho iminota 30

Igikorwa kiri ku rupapuro rwa 203 mu gitabo cy'umunyeshuri

- | | | |
|---------------------|----------------------|---------------------|
| a) Saa moya n'igice | b) Saa mbiri n'igice | c) Saatatu n'igice |
| d) Saa moya n'igice | e) Saa mbiri n'igice | f) Saa tatu n'igice |

Reka nisuzume iri ku rupapuro rwa 204 mu gitabo cy'umunyeshuri



2) a) 5:30

b) 1:30

Isaha iburaho iminota 30

Nsuzuma ngusuzume iri ku rupapuro rwa 205 mu gitabo cy'umunyeshuri

- | | |
|---------------------------------|---------------------------------|
| a) Saa munani zibura iminota 30 | d) Saa munani zibura iminota 30 |
|---------------------------------|---------------------------------|

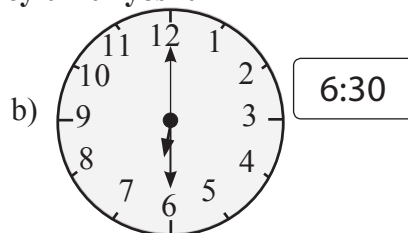
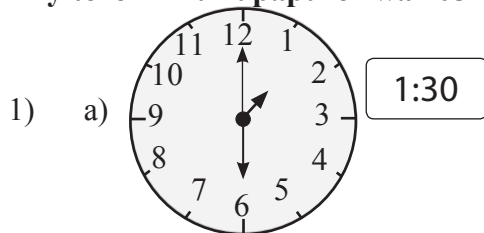
b) Saa kenda ibura 30

e) Saa kenda zibura iminota 30

c) Saa kumi zibura iminota 30

f) Saa kumi zibura iminota 30

Imyitozo iri ku rupapuro rwa 205 mu gitabo cy'umunyeshuri



Isaha irengaho iminota 15

Igikorwa cya 1 ku rupapuro rwa 206 mu gitabo cy'umunyeshuri

a) Saa moya na 15

c) Saa tatu na 15

e) Saa mbiri na 15

b) Saa mbiri na 15

d) Saa moya na 15

f) Saa tatu na 15

Nsuzuma ngusuzume iri ku rupapuro rwa 207 mu gitabo cy'umunyeshuri

a) Saa munani na 15

c) Saa kumi na 15

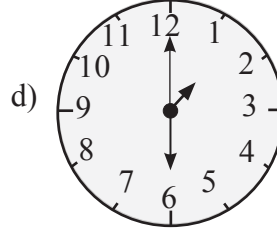
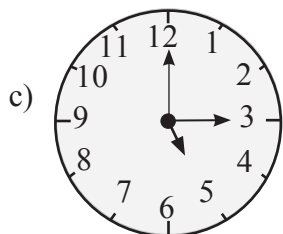
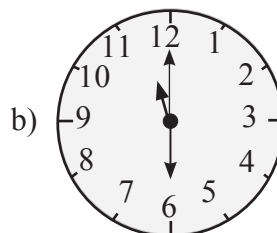
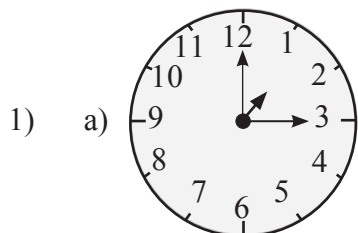
e) Saa kenda na 15

b) Saa kenda na 15

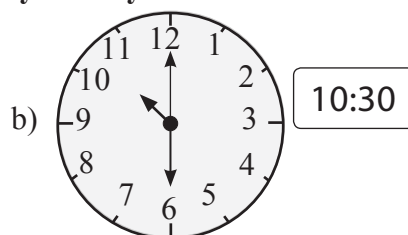
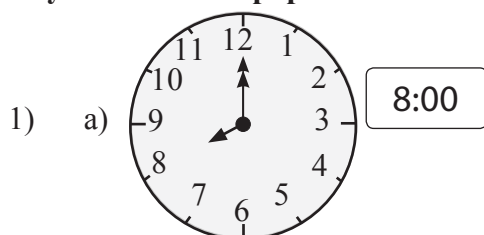
d) Saa munani na 15

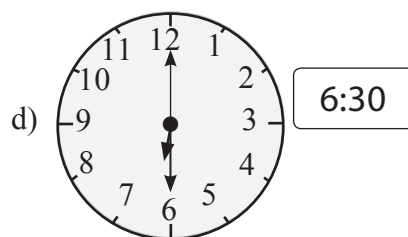
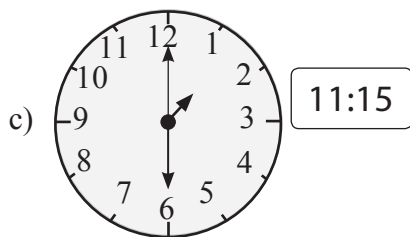
f) Saa kumi na 15

Reka nisuzume iri ku rupapuro rwa 207 mu gitabo cy'umunyeshuri.



Imyitozo iri ku rupapuro rwa 207 mu gitabo cy'umunyeshuri





Isaha iburaho iminota 15

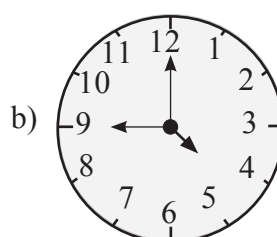
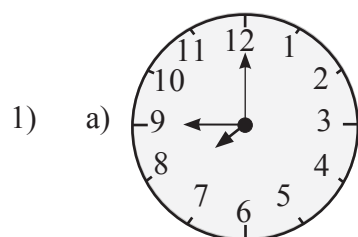
Igikorwa kiri ku rupapuro rwa 208 mu gitabo cy'umunyeshuri

- | | |
|-----------------------|----------------------|
| a) Saa mbiri ibura 15 | d) Saa mbiri ibura |
| b) Saa tatu ibura 15 | e) Saa tatu ibura 15 |
| c) Saa yine ibura 15 | f) Saa yine ibura 15 |

Nsuzuma ngusuzume iri ku rupapuro rwa 209 mu gitabo cy'umunyeshuri

- | | |
|------------------------|------------------------|
| a) Saa munani ibura 15 | d) Saa munani ibura 15 |
| b) Saa kenda ibura 15 | e) Saa kenda ibura 15 |
| c) Saa kumi ibura 15 | f) Saa kumi ibura 15 |

Ibisubizo by'imyitozo iri ku rupapuro rwa 209 mu gitabo cy'umunyeshuri



2) a) Saa sita na 15

b) Saa moya na 15

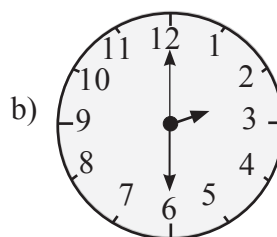
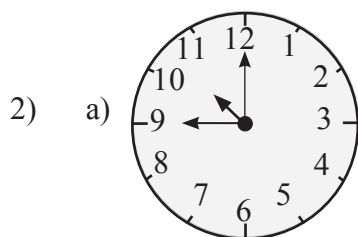
Gusoma ukandika igihe kerekanwe ku isaha

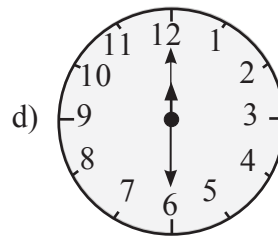
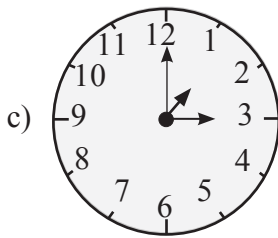
Nsuzuma ngusuzume iri ku rupapuro rwa 211 mu gitabo cy'umunyeshuri

- | | | |
|----------------------|-------------|-----------------------|
| a) Saa kenda na 15 | c) Saa tanu | e) Saa mbiri ibura 15 |
| b) Saa tatu ibura 15 | d) Saa tanu | f) Saa sita na 15 |

Ibisubizo by'imyitozo iri ku rupapuro rwa 211 mu gitabo cy'umunyeshuri

- | | | |
|---------------|--------------------|---------------------|
| 1 a) Saa sita | b) Saa kumi n'imwe | c) Saa tanu n'igice |
|---------------|--------------------|---------------------|





9.9.2 Ikigwa cya kabiri: Gukoresha neza indangaminsi (Amasomo 6)

a. Intego

Ubumenyi

Gusobanukirwa uko bakoresha neza indangaminsi.

Ubumenyigiro

Gukoresha neza indangaminsi.

Ubukeshya

Kugira no kubahiriza gahunda akoresha neza indangaminsi mu buzima busanzwe.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gukoresha indangaminsi.
- Guha abanyeshuri imfashanyigisho baza gukoresha.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Amasaha y'imibare n'ay'inshinge.
- Ibishushanyo bishushanyijeho indangaminsi zinyuranye zo gukoresha basoma cyangwa bandika igihe cyabajijwe.

d. Ibikorwa by'imyigire n'imyigishirize

- Yobora abanyeshuri bitegereze indangaminsi maze uyibabazeho ibibazo bituma batahura iminsi igize icyumweru n'amezi agize umwaka.
- Shyira abanyeshuri mu matsinda bakore imyitozo yo gutandukanya umwaka usanzwe n'umwaka udasanzwe.
- Hereza abanyeshuri urugero rw'uko bahindura imyaka mu mezi, ibyumweru mu minsi n'iminsi mu masaha.
- Hereza buri munyeshuri cyangwa babiribabiri imyitozo yo guhindura imyaka mu mezi, ibyumweru mu minsi n'iminsi mu masaha.

e. Ikomatany ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bakoresha indangaminsi.

e. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa rwa 214 mu gitabo cy'umunyeshuri yo gukoresha indangaminsi.

g. Ibisubizo by'imyitoto n'ibikorwa bijyanye n'iki kigwa

Ibisubizo by'imyitoto iri ku rupapuro rwa 214 mu gitabo cy'umunyeshuri

- 1) 1990 1995 1993 1991
- 2) 1996
- 3) 1999, 2001, 2002, 2003, 2005, 2007, 2009, 2010, 2011, 2013, 2014, 2015, 2017, 2018, 2019

Nsuzuma ngusuzume iri ku rupapuro rwa 215 mu gitabo cy'umunyeshuri

- | | |
|---------------------------------|---------------------------------|
| a) Imyaka 9 ingana n'amezi 108 | d) Imyaka 8 ingana n'amezi 96 |
| b) Imyaka 10 ingana n'amezi 120 | e) Imyaka 7 ingana n'amezi 84 |
| c) Imyaka 15 ingana n'amezi 180 | f) Imyaka 13 ingana n'amezi 156 |

Reka nisuzume iri ku rupapuro rwa 215 mu gitabo cy'umunyeshuri

- | | |
|-------------------------------|---------------------------------|
| a) Imyaka 2 ingana n'amezi 24 | d) Imyaka 11 ingana n'amezi 132 |
| b) Imyaka 3 ingana n'amezi 36 | e) Imyaka 12 ingana n'amezi 144 |
| c) Imyaka 4 ingana n'amezi 48 | f) Imyaka 14 ingana n'amezi 168 |

Nsuzuma ngusuzume iri ku rupapuro rwa 215 mu gitabo cy'umunyeshuri

- | | |
|--------------------------------------|--------------------------------------|
| a) Ibyumweru 9 bingana n'iminsi 63 | d) Ibyumweru 20 bingana n'iminsi 140 |
| b) Ibyumweru 11 bingana n'iminsi 77 | e) Ibyumweru 8 bingana n'iminsi 56 |
| c) Ibyumweru 15 bingana n'iminsi 105 | f) Ibyumweru 5 bingana n'iminsi 35 |

Reka nisuzume iri ku rupapuro rwa 215 mu gitabo cy'umunyeshuri

- | | |
|--------------------------------------|--------------------------------------|
| a) Ibyumweru 19 bingana n'iminsi 133 | d) Ibyumweru 80 bingana n'iminsi 560 |
| b) Ibyumweru 31 bingana n'iminsi 217 | e) Ibyumweru 38 bingana n'iminsi 266 |
| c) Ibyumweru 45 bingana n'iminsi 315 | f) Ibyumweru 35 bingana n'iminsi 245 |

Ibisubizo by'imyitoto iri ku rupapuro rwa 215 mu gitabo cy'umunyeshuri

- | | |
|--------------------------------------|--------------------------------------|
| a) Ibyumweru 24 bingana n'iminsi 168 | d) Ibyumweru 40 bingana n'iminsi 280 |
| b) Ibyumweru 19 bingana n'iminsi 133 | e) Ibyumweru 82 bingana n'iminsi 574 |
| c) Ibyumweru 55 bingana n'iminsi 385 | f) Ibyumweru 56 bingana n'iminsi 392 |

Nsuzuma ngusuzume iri ku rupapuro rwa 216 mu gitabo cy'umunyeshuri

- | | |
|-----------------------------------|-----------------------------------|
| a) Iminsi 15 ingana n'amasaha 360 | d) Iminsi 8 ingana n'amasaha 192 |
| b) Iminsi 7 ingana n'amasaha 168 | e) Iminsi 18 ingana n'amasaha 432 |
| c) Iminsi 10 ingana n'amasaha 240 | f) Iminsi 25 ingana n'amasaha 600 |

Reka nisuzume iri ku rupapuro rwa 216 mu gitabo cy'umunyeshuri

- | | |
|-----------------------------------|-----------------------------------|
| a) Iminsi 13 ingana n'amasaha 312 | d) Iminsi 17 ingana n'amasaha 408 |
| b) Iminsi 6 ingana n'amasaha 144 | e) Iminsi 35 ingana n'amasaha 840 |
| c) Iminsi 9 ingana n'amasaha 216 | f) Iminsi 4 ingana n'amasaha 96 |

Ibisubizo by'imyitoto iri ku rupapuro rwa 215 mu gitabo cy'umunyeshuri

- | | |
|---------------------------------|-----------------------------------|
| a) Iminsi 3 ingana n'amasaha 72 | d) Iminsi 14 ingana n'amasaha 336 |
|---------------------------------|-----------------------------------|

- b) Iminsi 4 ingana n'amasaha 96 e) Iminsi 16 ingana n'amasaha 384
c) Iminsi 5 ingana n'amasaha 120 f) Iminsi 19 ingana n'amasaha 456

9.9.3 Ikigwa cya gatatu: Gukora gahunda y'ibikorwa (Amasomo 2)

a. Intego

Ubumenyi

Gusobanukirwa uko bakora gahunda y'ibikorwa.

Ubumenyingiro

Gukora gahunda y'ibikorwa.

Ubukeshya

Kugaragaza umuco wo kubahiziza gahunda y'ibikorwa.

b. Intangiriro/Isubiramo

- Gushyira abanyeshuri mu matsinda
- Kubasaba kuganira kuri gahunda z'ibikorwa byabo bya buri muni
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Amasaha y'imibare n'ay'inshinge.
- Impapuro n'amakaramu byo gukoresha bategura gahunda y'ubikorwa byabo.

d. Ibikorwa by'imyigire n'imyigishirize

- Somesha abanyeshuri gahunda y'ibikorwa bya buri cyumweru bya Mugisha ndetse na gahunda y'ibikorwa bya buri kwezi ya Kamariza ziri mu bitabo byabo hanyuma ubashyira mu matsinda baganire kuri buri gahunda.
- Yobora abanyeshuri mu kiganiro hagati yabo kivuga kuri gahunda y'ibikorwa by'abanyeshuri bya buri muni n'iy'ibikorwa by'abanyeshuri bya buri cyumweri maze uhitemo abanyeshuri babiri bazajya bandika ibyo mwemeranijwe ku kibaho.
- Saba buri munyeshuri kwandika gahunda y'ibikorwa bye bya buri muni n'iy'ibikorwa bye bya buri cyumweri hanyuma uhe buri wese umwanya wo kubisobanura.

e. Ikomatanyaribizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bakwiye gukora gahunda y'ibikorwa byabo n'uko bayubahiriza.

f. Isuzuma

Guha abanyeshuri igikorwa cya 2 kiri ku rupapuro rwa 217 mu gitabo cy'umunyeshuri y'uko bakwiye gukora gahunda y'ibikorwa byabo n'uko bayubahiriza.

9.10 Gusoma umutwe

a. Inshamake y'ibikubiye muri uyu mutwe

- Gusoma no kuvuga igihe kerekanwe n'isaha, amasaha agize umunsi, iminsi y'ukwezi n'iy'umwaka, amezi
- Gukora gahunda y'ibikorwa by'icyumweru.

b. Ubumenyi bw'inyongera umwarimu asabwa kugira

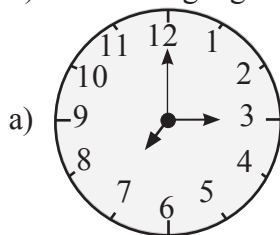
- Kumenya kuyobora ibikorwa byose kandi yita kuri buri munyeshuri nta we asize inyuma
- Gusobanura ku buryo bwimbitse ibirebana n'ingero z'igihe cyane cyane imikoreshereze yazo mu buzima busanzwe.
- Gutegura no gukoresha neza imfashanyigisho zinyuranye
- Kumenya uko yacengeza ingingo nsanganyamasomo igihe yigisha Imibare.
- Kumenya neza imyigishirize y'Imibare ijyanye n'integanyanyigisho ishingiyeho ku bushobozi.
- Kumenya amoko anyuranye y'amasaha n'imiterere yayo.
- Kumenya amoko y'indangaminsi atandukanye.

c. Ibisubizo by'isuzuma risoza umutwe wa 9 riri ku rupapuro rwa 220 mu gitabo cy'umunyeshuri

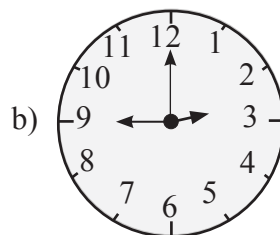
- 1) a) Saa munani ibura 15
b) Saa yine
c) Saa moya n'igice
d) Saa yine
- 2) a) Imyaka 40 ingana n'amezi 480
b) Ibyumweru 50 bingana n'iminsi 350
c) Iminsi 33 ingana n'amasaha 792
d) Imyaka 19 ingana n'amezi 228
e) Iminsi 29 ingana n'amasaha 696
f) Ibyumweru 52 bingana n'iminsi 364
- 3) a) $365/366$ b) $7/24$ c) $4/52$ d) Gashyantare
- 4) 2002, 2007, 2005
- 5) 2000, 2016, 2008, 2012 6) 2012 ; 2016 ; 2020 ; 2024 ; 2028

d. Imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire

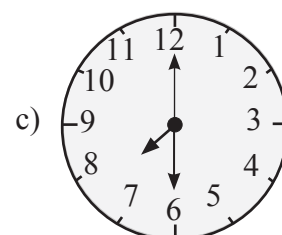
- 1) Soma uvuge igihe



Saa moya n'iminota 15

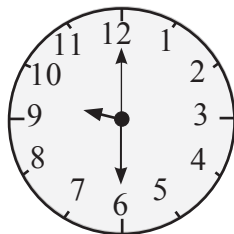


Saa kenda zibura 15



Saa moya n'igice

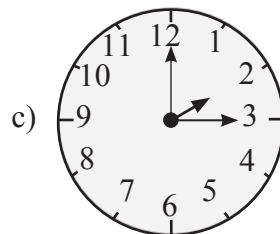
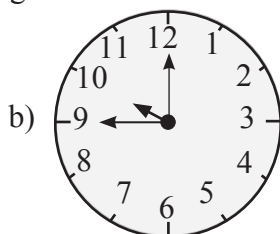
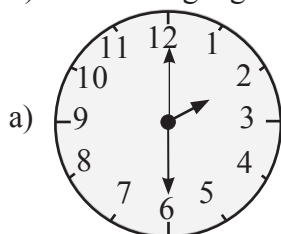
- 2) Shushanya isaha yerekana saa tatu n'igice



- 3) Soma ku ndangaminsi ya 2018 uvuge iminsi igize ukwezi kwa:
- Mata igira iminsi 30, Ukwakira kugira iminsi 31, Ukuboza kugira iminsi 31
 - Vuga amezi 3 afite iminsi 31: Mutarama, Werurwe, Gicurasi, ...

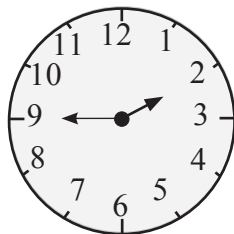
e. Imyitozo y'umwihariko ihabwa abanyeshuri bafite impano yo gufata vuba no kwihuta kurusha abandi mu myigire n'ibisubizo byayo

- 1) Soma uvuge igihe kigaragazwa ku isaha



Saa munani n'iminota 30 Saa tanu zibura 15 Saa munani n'iminota 15

- 2) Shushanya isaha ushyiremo imibare igize isaha, urushinge rw'amasaha n'urw'iminota, hanyuma werekane saa munani ibura 15



- 3) Itegereze indangaminsi ya 2018 ukore ukwezi kwa 1 kwa 2019

Ku Cyumweru	Ku wa Mbere	Ku wa Kabiri	Ku wa Gatatu	Ku wa Kane	Ku wa Gatanu	Ku wa Gatandatu
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Umutwe wa 10: Amoko y'imirongo n'imfuruka

10.1 Ubushobozi bw'ingenzi bugamijwe

- Guca no gutahura imirongo iteganye ikorana inguni n'inyuranamo
- Gushushanya no kugereranya imfuruka igororotse, ifunganye n'iyagutse

10.2 Ibyizwe mbere bifitanye isano n'uyu mutwe

Amoko y'imirongo n'ay'imfuruka.

10.3 Ubumenyi ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho

- *Uburezi budaheza* mu gihe adahutaza abo bigana bafite n'ubumuga cyangwa imibogamizi mu myigire yabo.
- *Umuko w'amahoro* mu gihe umunyeshuri akorana na bagenzi be mu bwumvikane nta we abangamiye.
- *Umuko wo gukoresha neza umutungo* igihe akoresha ibikoresho binyuranye akora imfuruka zinyuranye kandi akirinda kubyangiza.

10.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe

- *Gukoresha imvugo isobanutse* igihe yandika cyangwa asoma imirongo n'imfuruka.
- *Kugira amashyushyu* yo guhora yiyungura ubumenyi ku mirongo n'imfuruka.
- *Kwikemurira ibibazo* mu gihe umunyeshuri akoresha neza imfashanyigisho yikorera uducamurongo n'inguni.

10.5 Amagambo umunyeshuri yunguka muri uyu mutwe

Ingeramfuruka: agakoreshe ko mu mibare bapimisha imfuruka

Agacamurongo: agakoreshe ko mu mibare bacisha imirongo

Imfuruka igororotse: ni imfuruka ipima dogere 90

Imfuruka yagutse: ni imfuruka ipima dogere zirenga 90

Imfuruka ifunganye: ni imfuruka ipima dogere zitageze kuri 90

10.6 Uburyo bwo gusesengura ikibazo nyamukuru

- Umwarimu asomesha agakuru kajyanye n'ikibazo cy'umuhinzi wa kiyambere utazi gutunganya umurima we neza mbere yo gutera bityo agatera ibihingwa bye mu kajagari.
- Asaba abanyeshuri kukaganiraho no kugatangaho ibitekerezo bagaragaza icyo akeneye gusobanukirwa mu mibare kugira ngo age atera ibihingwa bye mu buryo bunozze.
- Abasobanurira ko ibisubizo nyabyo bazajya babibona mu masomo bagiye kwiga muri uyu mutwe.

10.7 Uko umwarimu yita by'umwihariko ku bafite ibibazo byihariye yigisha uyu mutwe

- Abafata bitinze bategurire imyitozo usanga mu gitabo cy'umwarimu; yoroshye ugereranyije n'iy'abandi.
- Abafite ubumuga bw'ingingo banza umenye izo ari zo ubategurire imfashanyigisho zihariye n'imyitozo wagenera buri wese.
- Abafite impano yo kumva no gukora vuba cyane bahe imyitozo usanga mu gitabo cy'umwarimu, ituma batarangaza abandi.

10.8 Ibyigwa biri muri uyu mutwe

	Urutonde rw'ibygwa	Umubare w'amasomo:12
1	Amoko y'imirongo	5
2	Amoko y'imfuruka	5
3	Isuzuma risoza umutwe	2

10.9 Imyigishirize ya buri kigwa

10.9.1 Ikigwa cya mbere: Amoko y'imirongo (Amasomo 5)

a. Intego

Ubumenyi

Gusobanukirwa amoko y'imirongo.

Ubumenyi

Gusobanukirwa amoko y'imirongo.

Ubukeshya

Kwitegereza, gushishoza no gukora ibibereye ijisho.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gutandukanya no guca imirongo.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe baca imirongo.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

Impapuro nini zikomeye, uducamurongo, metero, inguni, amakaramu anyuranye.

d. Ibikorwa by'imyigire n'imyigishirize

- Shyira abanyeshuri mu matsinda maze ubasabe guca imirongo igororotse, ifunganye, ivunaguye, iteganye, inyuranamo, ...
- Saba abanyeshuri kwitegereza imirongo bashushanyije bavuge amazina y'imirongo inyuranamo igakora imfuruka zigororotse, zifunganye cyangwa zagutse.

- Ha buri munyeshuri umwanya wo guca nibura umurongo umwe kuri buri bwoko bw'imirongo yizwe.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make amoko y'imirongo n'uko bayica.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 224 mu gitabo cy'umunyeshuri ku moko y'imirongo.

g. Ibizubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Ibizubizo by'imyitozo iri ku rupapuro rwa 224 mu gitabo cy'umunyeshuri

- A na B ni imirongo iteganye
- A na C ni imirongo inyuranamo ikora imfuruka yagutse n'ifunganye
- A na D ni imirongo inyuranamo ikora imfuruka zigororotse
- A na F ni imirongo inyuranamo ikora imfuruka yagutse n'ifunganye
- A na E ni imirongo inyuranamo ikora imfuruka zigororotse
- B na D ni imirongo inyuranamo ikora imfuruka zigororotse
- B na C ni imirongo inyuranamo ikora imfuruka yagutse n'ifunganye
- B na E ni imirongo inyuranamo ikora imfuruka zigororotse

10.9.2 Ikigwa cya kabiri: Amoko y'imfuruka (Amasomo 5)

a. Intego

Ubumenyi

Gusobanukirwa amoko y'imfuruka.

Ubumenyigiro

Gutandukanya no gushushanya amoko y'imfuruka.

Ubukeshya

Kwitegereza, gushishoza no gukora ibibereye ijisho.

b. Imyitozo y'isubiramo/Intangiriro

- Imyitozo inyuranye yo gutandukanya no gushushanya imfuruka.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe bashushanya imfuruka.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

Impapuro nini zikomeye, uducamurongo, metero, inguni, amakaramu anyuranye, ingeramfuruka.

d. Ibikorwa by'imyigire n'imyigishirize

- Shyira abanyeshuri mu matsinda maze ubasabe guca imfuruka igororotse, ifunganye n'iyagutse bakoreshe irate n'ingeramfuruka.
- Saba abanyeshuri kwitegereza imfuruka bashushanyije maze bavuge amazina y'imirongo ikora imfuruka igororotse, iyagutse n'ifunganye.
- Ha buri munyeshuri umwanya wo guca imfuruka igororotse, iyagutse n'ifunganye, akoreshe ingeramfuruka azipime hanyuma agereranye ibipimo byazo.

e. komatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make amoko y'imfuruka n'uko bayica.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 228 na 229 mu gitabo cy'umunyeshuri ku moko y'imfuruka.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

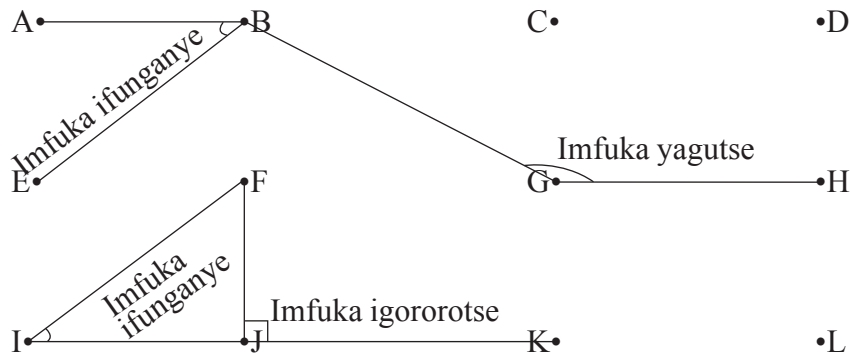
Ibisubizo by'imyitozo iri ku rupapuro rwa 227 mu gitabo cy'umunyeshuri

- 1) Ibisubizo biratandukanye bitewe n'imfuruka buri munyeshuri azabona ku ishusho.
- 2) a) Imfuruka igororotse
b) Imfuruka ifunganye
c) Imfuruka yagutse

Ibisubizo by'imyitozo iri ku rupapuro rwa 228–229 mu gitabo cy'umunyeshuri

1. a) Dogere 120 c) Dogere 30 e) Dogere 50 g) Dogere 30
b) Dogere 90 d) Dogere 135 f) Dogere 90 h) Dogere 130

2.



10.10 Gusozza umutwe

a. Inshamake y'ibikubiye muri uyu mutwe

Amoko y'imirongo n'amoko y'imfuruka

b. Ubumenyi bw'inyongera umwarimu asabwa kugira

- Kumenya kuyobora ibikorwa byose kandi yita kuri buri munyeshuri nta we asize inyuma.
- Gusobanura ku buryo bwimbitse ibirebana n'amoko y'imirongo n'ay'imfuruka cyane cyane imikoreshereze yazo mu buzima busanzwe.
- Gutegura no gukoresha neza imfashanyigisho zinyuranye.
- Kumenya uko yacengeza ingingo nsanganyamasomo igihe yigisha Imibare
- Kumenya neza imyigishirize y'Imibare ijyanye n'integanyanyigisho ishingiye ku bushobozi.
- Kumenya uko baca byihuse imirongo n'imfuruka n'uko agenzura ko bigororotse.
- Kumenya neza gushushanya akoresheje intoki n'ibikoreshe bya Jewometiri.

c. Ibisubizo by'isuzuma risoza umutwe wa 10 riri ku rupapuro rwa 233 mu gitabo cy'umunyeshuri

- 2) a) Imirongo iteganye
b) Imirongo inyuranamo ikora imfuruka yagutse n'ifunganye
c) Imirongo inyuranamo ikora imfuruka zigororotse
d) Imirongo inyuranamo ikora imfuruka zigororotse
e) Imirongo inyuranamo ikora imfuruka yagutse n'ifunganye
f) Imirongo inyuranamo ikora imfuruka yagutse n'ifunganye
- 3) a) Imfuruka igororotse b) Imfuruka ifunganye c) Imfuruka yagutse
6) a) Oya b) Yego c) Yego d) Yego

d. Imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire n'ibisubizo byayo

1. Shushanya amoko uzi y'imirongo igororotse inyuranye uvuge amazina yayo
2. Erekan ibintu 2 mu ishuri biriho imirongo ikorana inguni uvuge uko iyo nguni iteye.
3. Wifashishije urupapuro rw'utuzu n'agacamurongo, shushanya imfuruka igororotse n'iyagutse.

Ibisubizo by'imyitoto y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire n'ibisubizo byayo

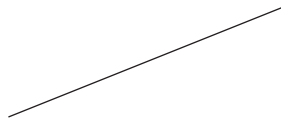
1) Umurongo uhagaze



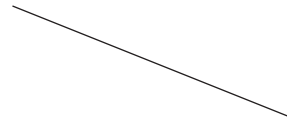
Umurongo utambitse



Umurongo uberamiye iburyo



Umurongo uberamiye ibumoso

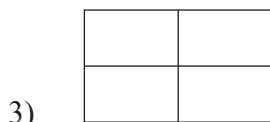
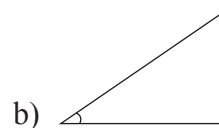
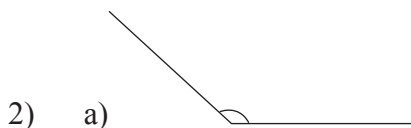
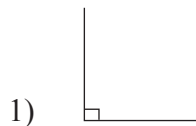


2, 3 Ibisubizo biratandukanye bikurikije ibyo buri munyeshuri ahitamo.

e. Imyitoto y'umwihariko ihabwa abanyeshuri bafite impano yo gufata vuba no kwihuta kurusha abandi mu myigire n'ibisubizo byayo

1. Shushanya imirongo ikorana inguni igororotse ukoresheje agacumurongo
2. Shushanya imirongo ikorana inguni yagutse n'ifunganye ukoresheje intoki gusa.
3. Shushanya ikintu uzi kigaragaza inguni z'amoko atandukanye.

f. Ibisubizo by'imyitoto y'amwihariko ihabwa abanyeshuri bafite impano yo gufata vuba no kwihuta karusha abandi



Urugero: Idirishya

Umutwe wa 11: Kare urukiramende, mpandeshatu n'uruziga

11.1 Ubushobozi bw'ingenzi bugamijwe

- Gushushanya no kuranga kare, urukiramende, mpandeshatu n'uruziga.
- Gushaka umuzenguruko wa kare, urukiramende na mpandeshatu.

11.2 Ibyizwe mbere bifitanye isano n'uyu mutwe

Gutahura kare, urukiramende na mpandeshatu mu yandi mashusho no kubishakira umuzenguruko.

11.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho

- *Gufata neza ibidukikije* bugaragara igihe abanyeshuri bose basukura aho bakorera, bafata neza imfashanyigisho bakoresheje cyangwa bashaka imfashanyigisho nta kintu bangiza.
- *Umuco wo gukoresha neza umutungo* ugaragara mu myitozo isaba abanyeshuri gucunga neza imfashanyigisho bashushanyisha cyangwa bapimisha.
- *Umuco w'amahoro* ugaragara mu bikorwa byo mu matsinda aho umunyeshuri akorana na bagenzi be mu bwumvikane nta we abangamiye.

11.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe

- *Gushyikirana n'abandi* igihe buri munyeshuri akorera mu matsinda cyangwa afatanye n'abandi.
- *Gukoresha imvugo isobanutse* igihe yandika cyangwa asoma ibiranga kare, urukiramende, mpandeshatu n'uruziga.
- *Kwikemurira ibibazo* mu gihe akoresha neza imfashanyigisho yikorera amashushongerero atandukanye kandi akirinda kuyangiza.

11.5 Amagambo umunyeshuri yunguka muri uyu mutwe

Mpandeshatu nyampanga: ifite impande ebyiri zingana

Mpandeshatu ndinganire: ifite impande zose zingana

Mpandeshatu nyanguni: ifite impande ebyiri zikora imfuruka igororotse

Mpandeshatu ibonetse yose: ifite impande eshatu ziteye ku buryo bunyuzanye kandi zitangana

Umurambararo : umurongo usanganya uruziga uciye mu izingiro

Izingiro: akadomo rwagati mu ruziga

Akarambararo: akarongo kava ku izingiro kakagera ku murongo w'uruziga

Impuzampembe: umurongo uhuza impembe ebyiri ziteganye z'ishushongerero

Ingwagati: umurongo ugabanya ishushongerero mo kabiri ku buryo uhuriza rwagati utudomo tubiri tw'impande ziteganye.

11.6 Uburyo bwo gusesengura ikibazo nyamukuru

Umwarimu asomesha agakuru kajyanye n'ikibazo cy'umuntu utazi ishusho y'umurima we ndetse n'umuzenguruko wawo kandi akeneye kuwuzitira.

- Asaba abanyeshuri kukaganiraho no kugatangaho ibitekerezo bagaragaza icyo akeneye gusobanukirwa mu mibare kugira ngo atazongera guhura n'icyo kibazo.
- Abasobanurira ko ibisubizo nyabyo bazajya babibona mu masomo bagiye kwiga muri uyu mutwe.

11.7 Uko umwarimu yita by'umwihariko ku bafite ibibazo byihariye yigisha uyu mutwe

- Abafata bitinze bategurire imyitozo usanga mu gitabo cy'umwarimu; yoroshye ugereranyije n'iy'abandi.
- Abafite ubumuga bw'ingingo banza umenye izo ari zo ubategurire imfashanyigisho zihariye n'imyitozo wagenera buri wese.
- Abafite impano yo kumva no gukora vuba cyane bahe imyitozo usanga mu gitabo cy'umwarimu, ituma batarangaza abandi.

11.9 Ibyigwa biri muri uyu mutwe

	Ibyigwa	Umubare w'amasomo: 36
1	Ibiranga kare	4
2	Umuzenguruko wa kare	4
3	Ibiranga urukiramende	4
4	Umuzenguruko w'urukiramende	4
5	Ibiranga mpandeshatu	4
6	Amoko ya mpandeshatu	4
7	Umuzenguruko wa mpandeshatu	4
8	Ibiranga uruziga	4
9	Isuzuma risoza umutwe	4

11.9 Imyigishirize ya buri kigwa

11.9.1 Ikigwa cya mbere: Ibiranga kare (Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa ibiranga Kare.

Ubumenyingiro

Gutandukanya ibiranga Kare.

Ubukeshya

Kwitegereza, gushishoza no gukora ibibereye ijisho.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gutandukanya ibiranga kare.

- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe bashushanya cyangwa bakora kare.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Impapuro nini zikomeye, uducamurongo, metero, inguni, amakaramu anyuranye, impapuro n'ibikarito.

d. Ibikorwa by'imyigire n'imyigishirize

- Koresha ingeramfuruka n'irati ushushanye kare maze usabe abanyeshuri kuyitegereza bakavuga ibiyiranga.
- Saba abanyeshuri bage ku kibaho umwe akoreshe irati apime impande za kare washushanyije maze undi akoreshe ingeramfuruka apime imfuruka z'iyi kare washushanyije.
- Yobora buri munyeshuri ashushanye kare, apime impande zayo n'imfuruka zayo azenzura ko impande ziyigize zingana ndetse ko n'imfuruka zayo zigororotse.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make ibiranga kare.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 236 mu gitabo cy'umunyeshuri ku kuranga kare.

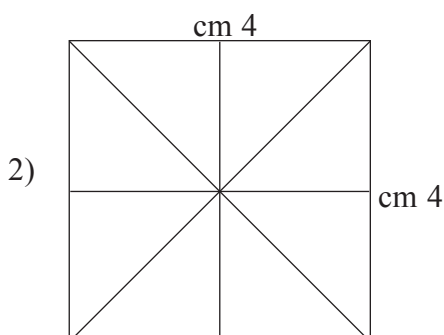
g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

kare

Ibiranga kare

Reka nisuzume iri ku rupapuro rwa 236

- 1) Ishusho ya b ni kare kubera ko ifite impande 4 zingana



Nsuzuma ngusuzume iri ku rupapuro rwa 236 mu gitabo cy'umunyeshuri

- 1) Ibisubizo biratandukanye bitewe n'ibyo umunyeshuri azasanga bifite ishusho ya kare biri mu ishuri ryabo.
- 2) Ibisubizo biratandukanye bitewe n'uko umunyeshuri azakora kare mu bikarito akayimanika mu ishuri rye.

Imyitozo iri ku rupapuro rwa 236 mu gitabo cy'umunyeshuri

- 1) Ibisubizo biratandukanye bitewe n'uko umunyeshuri azasobanura ibintu azi bifite ishusho ya kare.
- 2) a) Impuzampembe b) Ingwagati c. Ingwagati d) Impuzampembe

11.9.2 Ikigwa cya kabiri: Gushaka umuzenguruko wa kare (Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa uko bashaka umuzenguruko wa kare.

Ubumenyigiro

Gushaka umuzenguruko wa kare.

Ubukeshya

Kwitegereza, gushishoza no gukora ibibereye ijisho.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gushaka umuzenguruko wa kare.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe bashaka umuzenguruko wa kare.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Impapuro nini zikomeye, uducamurongo, metero, inguni, amakaramu anyuranye, impapuro n'ibikarito.

d. Ibikorwa by'imyigire n'imyigishirize

- Shushanya kare maze usabe abanyeshuri gupima uburebure bw'imipande zose ziyigize.
- Shyira abanyeshuri mu matsinda maze ubayobore bashushanye kare nibamara kuyishushanya bashake umuzenguruko wayo.
- Hereza abanyeshuri ihurizo ry'urugero ryo gushaka umuzenguruko wa kare nurangiza ubahe umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bashaka umuzenguruko wa kare.

e. Isuzuma

Guha abanyeshuri imyitozo iri mu gitabo cy'umunyeshuri ku gushaka umuzenguruko wa kare.

g. Ibisubizo by'imyizozo n'ibikorwa bijyanye n'iki kigwa

Umuzenguruko wa kare

Reka nisuzume iri ku rupapuro rwa 238 mu gitabo cy'umunyeshuri

- | | |
|--|--|
| a) $\text{cm } 125 \times 4 = \text{cm } 500$ | c) $\text{cm } 602 \times 4 = \text{cm } 2\,408$ |
| b) $\text{cm } 407 \times 4 = \text{cm } 1\,628$ | d) $\text{cm } 765 \times 4 = \text{cm } 3\,060$ |

Nsuzuma ngusuzume iri ku rupapuro rwa 238 mu gitabo cy'umunyeshuri

- | | |
|---|--|
| 1) a) $\text{cm } 640 : 4 = \text{cm } 160$ | c) $\text{cm } 312 : 4 = \text{cm } 78$ |
| b) $\text{cm } 196 : 4 = \text{cm } 49$ | d) $\text{cm } 676 : 4 = \text{cm } 169$ |
- 2) Umuzenguruko $\text{m } 80 \times 4 = \text{m } 320$
- 3) Uruhande $\text{m } 1700 : 4 = \text{m } 425$

Imyitozo iri ku rupapuro rwa 238 mu gitabo cy'umunyeshuri

- 1) Umuzenguruko $\text{cm } 145 \times 4 = \text{cm } 580$
- 2) Uruhande $\text{m } 160 : 4 = \text{m } 40$
- 3) a) Umuzenguruko $\text{cm } 25 \times 4 = \text{cm } 100$
- b) Umuzenguruko $\text{cm } 35 \times 4 = \text{cm } 140$

11.9.3 Ikigwa cya gatatu: Ibiranga urukiramende (Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa ibiranga urukiramende.

Ubumenyigiro

Gutandukanya ibiranga urukiramende.

Ubukeshya

Kwitegereza, gushishoza no gukora ibibereye ijisho.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gutandukanya ibiranga urukiramende.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe bashushanya cyangwa bakora urukiramende.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Impapuro nini zikomeye, uducamurongo, metero, inguni, amakaramu anyuranye, impapuro n'ibikarito.

d. Ibikorwa by'imyigire n'imyigishirize

- Koresha ingeramfuruka n'irati ushushanye urukiramende maze usabe abanyeshuri kurwitegereza bakavuga ibiyaranga.
- Saba abanyeshuri bage ku kibaho umwe akoreshe irati apime impande z'urukiramende washushanyije maze undi akoreshe ingeramfuruka apime imfuruka z'urwo rukiramende washushanyije.
- Yobora buri munyeshuri ashushanye urukiramende, apime impande zarwo n'imfuruka zarwo azenzura ko impande zirugize ziteganye zingana ndetse ko n'imfuruka zarwo zigorotse.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make ibiranga urukiramende.

f. Isuzuma

Guha abanyeshuri Nsuzuma ngusuzume iri ku rupapuro rwa 240 mu gitabo cy'umunyeshuri ku kuranga urukiramende.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

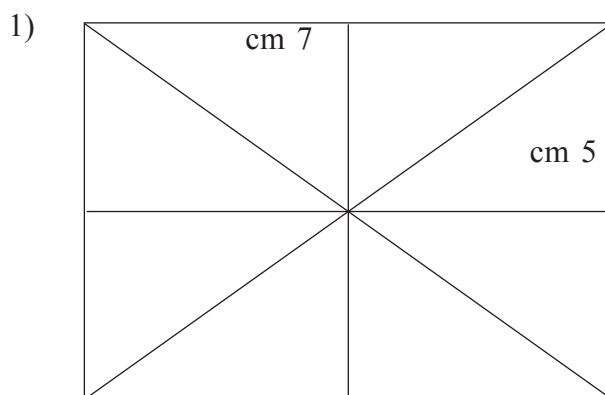
Urukiramende

Ibiranga urukiramende

Nsuzuma ngusuzume iri ku rupapuro rwa 240 mu gitabo cy'umunyeshuri

- | | | | |
|-----------------|--------------|-----------------|------------|
| a) Uburebure | c) Uburebure | e) Impuzampembe | g) Ubugari |
| b) Impuzampembe | d) Ingwagati | f) Ingwagati | h) Ubugari |

Reka nisuzume iri ku rupapuro rwa 240 mu gitabo cy'umunyeshuri



- 2) Ishusho a) ni rwo rukiramende kubera ko ifite impande ebyirebyiri ziteganye zingana.

Imyitozo iri ku rupapuro rwa 241 mu gitabo cy'umunyeshuri

- 1) Ibisubizo biratandukanye bitewe n'ibyo umunyeshuri azasanga bifite ishusho y'urukiramende biri mu ishuri ryabo.
- 2) Ibisubizo biratandukanye bitewe n'uko umunyeshuri azakora urukiramende mu bikarito akayimanika mu ishuri rye.
- 3) Ibisubizo biratandukanye bitewe n'ibyo umunyeshuri azi bifite ishusho y'urukiramende.

11.9.4 Ikigwa cya kane: Gushaka umuzenguruko w'urukiramende (Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa uko bashaka umuzenguruko w'urukiramende.

Ubumenyigiro

Gushaka umuzenguruko w'urukiramende.

Ubukeshya

Kwitagereza, gushishoza no gukora ibibereye ijisho.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gushaka umuzenguruko w'urukiramende.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe bashaka umuzenguruko wa kare.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Impapuro nini zikomeye, uducamurongo, metero, inguni, amakaramu anyuranye, impapuro n'ibikarito.

d. Ibikorwa by'imyigire n'imyigishirize

- Shushanya urukiramende maze usabe abanyeshuri gupima uburebure bw'impande zose zirugize.
- Shyira abanyeshuri mu matsinda maze ubayobore bashushanye urukiramende nibamara kurushushanya bashake umuzenguruko warwo.
- Hereza abanyeshuri ihurizo ry'urugero ryo gushaka umuzenguruko w'urukiramende nurangiza ubahe umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanywa ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bashaka umuzenguruko w'urukiramende.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 242 mu gitabo cy'umunyeshuri ku gushaka umuzenguruko w'urukiramende.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Umuzenguruko w'urukiramende

Nsuzuma ngusuzume iri ku rupapuro rwa 242 mu gitabo cy'umunyeshuri

- a) Umuzenguruko: $(\text{cm } 350 + \text{cm } 100) \times 2 = \text{cm } 900$
- b) Umuzenguruko: $(\text{cm } 475 + \text{cm } 215) \times 2 = \text{cm } 690$
- c) Umuzenguruko: $(\text{cm } 564 + \text{cm } 245) \times 2 = \text{cm } 809$
- d) Umuzenguruko: $(\text{cm } 368 + \text{cm } 162) \times 2 = \text{cm } 530$

Reka nisuzume iri ku rupapuro rwa 242 mu gitabo cy'umunyeshuri

- 1) Umuzenguruko: $(\text{m } 570 + \text{m } 450) \times 2 = \text{m } 2\,040$
- 2) Umuzenguruko: $(\text{cm } 750 + \text{cm } 250) \times 2 = \text{m } 2\,000$

Imyitozo iri ku rupapuro rwa 242 mu gitabo cy'umunyeshuri

- 1)
 - a) Umuzenguruko: $(\text{cm } 124 + \text{cm } 98) \times 2 = \text{m } 444$
 - b) Umuzenguruko: $(\text{cm } 259 + \text{cm } 198) \times 2 = \text{m } 914$
 - c) Umuzenguruko: $(\text{cm } 412 + \text{cm } 395) \times 2 = \text{m } 1\,614$
 - d) Umuzenguruko: $(\text{cm } 184 + \text{cm } 139) \times 2 = \text{m } 646$
- 2) Umuzenguruko: $(\text{cm } 63 + \text{cm } 39) \times 2 = \text{cm } 204$
- 3) Umuzenguruko: $(\text{cm } 250 + \text{cm } 150) \times 2 = \text{cm } 900$

11.9.5 Ikigwa cya gatanu: Ibiranga Mpandeshatu (Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa ibiranga mpandeshatu.

Ubumenyigiro

Gutandukanya ibiranga mpandeshatu.

Ubukeshya

Kwitegereza, gushishoza no gukora ibibereye ijisho.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gutandukanya ibiranga mpandeshatu.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe bashushanya cyangwa bakora mpandeshatu.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Impapuro nini zikomeye, uducamurongo, metero, inguni, amakaramu anyuranye, impapuro n'ibikarito.

d. Ibikorwa by'imyigire n'imyigishirize

- Koresha ingeramfuruka n’irati ushushanye mpandeshatu maze usabe abanyeshuri kuyitegereza bakavuga ibiyaranga.
- Saba abanyeshuri bage ku kibaho umwe akoreshe irati apime impande za mpandeshatu washushanyije maze undi akoreshe ingeramfuruka apime imfuruka z’iyo mpandeshatu washushanyije.
- Yobora buri munyeshuri ashushanye mpandeshatu, apime impande zayo n’imfuruka zayo.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make ibiranga mpandeshatu.

f. Isuzuma

Guha abanyeshuri igikorwa cya 3 kiri ku rupapuro rwa 243 mu gitabo cy'umunyeshuri ku kuranga mpandeshatu.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Mpandeshatu

Ibiranga mpandeshatu

Nsuzuma ngusuzume iri ku rupapuro rwa 248 mu gitabo cy'umunyeshuri

- a) Mpandeshatu nyampanga b) Mpandeshatu ndinganire
c) Mpandeshatu nyanguni

11.9.6 Ikigwa cya gatandatu: Amoko ya mpandeshatu (Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa amoko ya mpandeshatu.

Ubumenyingiro

Gutandukanya amoko ya mpandeshatu.

Ubukeshu

Kwitegereza no gushishoza.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye ku biranga mpandeshatu.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe bashaka amoko ya mpandeshatu.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

- Impapuro nini zikomeye, uducamurongo, metero, inguni, amakaramu anyuranye, impapuro n'ibikarito.
- Imfashanyigisho zivuga cyangwa bakorakora ku batabona.
- Imvugo y'amarenga ku batumva n'abatavuga.

d. Ibikorwa by'imyigire n'imyigishirize

- Shushanya mpandeshatu nyanguni maze usabe abanyeshuri kuyitegereza bagasobanura ibiyiranga.
- Shushanya mpandeshatu nyampanga maze usabe abanyeshuri kuyitegereza bagasobanura ibiyiranga.
- Shushanya mpandeshatu ndinganire maze usabe abanyeshuri kuyitegereza bagasobanura ibiyiranga.
- Shushanya mpandeshatu ibonetse yose maze usabe abanyeshuri kuyitegereza bagasobanura ibiyiranga.
- Shyira abanyeshuri mu matsinda maze ubasabe gushushanya amoko yose ya mpandeshatu washushanyije.
- Shushanya mpandeshatu nyampanga, nyanguni, ndinganire n'ibonetse yose ku dupapuro twinshi maze utuvangavange udushyire mu gakarito hanyuma uge uhamagara buri munyeshuri umusabe gufata akapapuro ashaka maze avuge izina rya mpandeshatu ishushanyijeho.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make ibiranga amoko ya mpandeshatu.

f. Isuzuma

Guha abanyeshuri Reka nisuzume iri ku rupapuro rwa 248 mu gitabo cy'umunyeshuri ku moko ya mpandeshatu.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Reka nisuzume iri ku rupapuro rwa 248 mu gitabo cy'umunyeshuri

- | | |
|-----------------------------------|--------------------------|
| a) 180 | d) Mpandeshatu nyampanga |
| b) Impande 3 n'imfuruka 3 zingana | e) Nyanguni |
| c) 60 | f) Imfuruka 2 zingana |

11.9.7 Ikigwa cya karindwi: Gushaka umuzenguruko wa mpandeshatu (Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa uko bashaka umuzenguruko wa mpandeshatu.

Ubumenyigiro

Gushaka umuzenguruko wa mpandeshatu.

Ubukasha

Kwitegereza no gushishoza.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gushaka umuzenguruko wa mpandeshatu.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe bashaka umuzenguruko wa mpandeshatu.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

Impapuro nini zikomeye, uducamurongo, metero, inguni, amakaramu anyuranye, umugozi, urudodo impapuro n'ibikarito.

d. Ibikorwa by'imyigire n'imyigishirize

- Shushanya mpandeshatu maze usabe abanyeshuri gupima uburebure bw'impande zose ziyigize.
- Shyira abanyeshuri mu matsinda maze ubayobore bashushanye mpandeshatu bishakiye nibamara kuyishushanya bashake umuzenguruko wayo.
- Ha abanyeshuri ihurizo ry'urugero ryo gushaka umuzenguruko wa mpandeshatu nurangiza ubahe umwanya wo gusobanura uko ryakosowe, ukurikizeho amahurizo akorwa na babiribabiri maze akosorwe muri rusange hanyuma uhe buri munyeshuri amahurizo akora ku giti ke.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bashaka umuzenguruko wa mpandeshatu.

f. Isuzuma

Guha abanyeshuri imyitozo iri mu gitabo cy'umunyeshuri ku rupapuro rwa 250 ku gushaka umuzenguruko wa mpandeshatu.

g. Ibisubizo by'imyitozo inyanye n'iki kigwa

Umuzenguruko wa mpandeshatu

Nsuzuma ngusuzume iri ku rupapuro rwa 248 mu gitabo cy'umunyeshuri

- a) Umuzenguruko: $\text{cm } 230 + \text{cm } 250 + \text{cm } 350 = \text{cm } 830$
- b) Umuzenguruko: $\text{cm } 150 + \text{cm } 150 + \text{cm } 150 = \text{cm } 450$
- c) Umuzenguruko: $\text{dm } 270 + \text{dm } 270 + \text{dm } 110 = \text{dm } 650$
- d) Umuzenguruko: $\text{cm } 75 + \text{cm } 59 + \text{cm } 68 = \text{cm } 202$

Reka nisuzume iri ku rupapuro rwa 250 mu gitabo cy'umunyeshuri

- 1) Umuzenguruko: $\text{cm } 97 \times 3 = \text{cm } 291$
- 2) Umuzenguruko: $\text{cm } 195 \times 3 = \text{cm } 585$

Imyitozo iri ku rupapuro rwa 250 mu gitabo cy'umunyeshuri

- a) Umuzenguruko: $\text{cm } 30 + \text{cm } 30 + \text{cm } 30 = \text{cm } 90$
- b) Umuzenguruko: $\text{cm } 43 + \text{cm } 43 + \text{cm } 70 = \text{cm } 156$
- c) Umuzenguruko: $\text{cm } 30 + \text{cm } 50 + \text{cm } 58 = \text{cm } 138$

11.9.8 Ikigwa cya munani: Ibiranga Uruziga (Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa ibiranga uruziga.

Ubumenyigiro

Gutandukanya ibiranga uruziga.

Ubukeshya

Kwitegereza no gushishoza gukora ibibereye ijisho.

b. Intangiriro

- Ibikorwa byo kwitegereza no gutahura ibiranga uruziga.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

Impapuro nini zikomeye, uducamurongo, metero, agacaruziga, imifuniko y'amacupa, udukombe, inguni, amakaramu anyuranye, impapuro n'ibikarito.

d. Ibikorwa by'imyigire n'imyigishirize

- Koresha agacaruziga, ingeramfuruka n'irati maze ushushanye uruziga usabe abanyeshuri kurwitegereza bakavuga ibiruranga.
- Saba abanyeshuri bage ku kibaho umwe akoreshe irati apime umurambararo n'akarambararo bya mpandeshatu washushanyije.
- Yobora buri munyeshuri ashushanye uruziga, apime umurambararo n'akarambararo karwo.

e. Ikomatanyaribyzwe

Kuyobora abanyeshuri mu kuvuga muri make ibiranga uruziga.

f. Isuzuma

Guha abanyeshuri Reka nisuzume iri ku rupapuro rwa 252 mu gitabo cy'umunyeshuri ku kuranga uruziga.

g. Ibisubizo by'imyitozo ijyanye n'iki kigwa

Uruziga

Reka nisuzume iri ku rupapuro rwa 252 mu gitabo cy'umunyeshuri

1 na 2 ibisubizo biratandukanye.

- 3) a) Akarambararo c) Umurambararo e) Umurambararo
b) Umurambararo d) Izingiro

Imyitozo iri ku rupapuro rwa 253 mu gitabo cy'umunyeshuri

- a) OD ni akarambararo d) AC ni umurambararo
b) OB ni akarambaro e) OE ni akarambararo
c) BE ni umurambararo f) OA ni akarambararo

11.10 Gusozo umutwe

a. Inshamake y'ibikubiye muri uyu mutwe

Ibiranga amashushongero akurikira: Kare, urukiramende, mpandeshatu n'uruziga. Uko bashaka umuzenguruko wa Kare, urukiramende, mpandeshatu n'uruziga.

b. Ubumenyi bw'inyongera umwarimu asabwa kugira

- Kumenya kuyobora ibikorwa byose kandi yita kuri buri munyeshuri nta we asize inyuma.
- Gusobanura ku buryo bwimbitse ibiranga kare, urukiramende, mpandeshatu n'uruziga, uko bashaka umuzenguruko wa byo n'imikoreshereze y'ayo mashushongero mu buzima busanzwe.
- Gutegura no gukoresha neza imfashanyigisho zinyuranye.
- Kumenya uko yacengeza ingingo nsanganyamasomo igihe yigisha Imibare.
- Kumenya neza imyigishirize y'Imibare ijyanye n'integanyanyigisho ishingiye ku bushobozi.
- Kumenya uko bashushanya amashushongero n'uko agenzura ko bigororotse.
- Kumenya neza gushushanya akoresheje intoki n'ibikoreshe bya Jewometiri.

c. Ibisubizo by'isuzuma risoza umutwe wa 11 riri ku rupapuro rwa 254 – 255 mu gitabo cy'umunyeshuri

- 1) a) Uruziga d) Urukiramende
b) Mpandeshatu nyanguni e) Mpandeshatu iyo ariyo yose
c) Kare f) Mpandeshatu nyampanga
- 2) Ibisubizo biratandukanye bitewe n'uko buri mwana azashushanya amashushongero yabajijwe.
- 3) a) Umuzenguruko $\text{cm } 135 \times 4 = \text{cm } 540$
b) Umuzenguruko $(\text{cm } 364 + \text{cm } 132) \times 2 = \text{cm } 992$
c) Umuzenguruko $\text{cm } 605 + \text{cm } 235 + \text{cm } 385 = \text{cm } 1225$
- 4) a) Oya b) Yego c) Oya d) Yego e) Oya
- 5) a) Umuzenguruko: $\text{cm } 23 + \text{cm } 19 + \text{cm } 39 = \text{cm } 71$
b) Umuzenguruko: $(\text{cm } 50 + \text{cm } 30) \times 2 = \text{cm } 160$
c) Umuzenguruko: $\text{cm } 15 \times 4 = \text{cm } 60$
d) Umuzenguruko: $\text{cm } 50 + \text{cm } 110 + \text{cm } 50 = \text{cm } 210$
- 6) a) 1) Uburebure 4) Ingwagati 7) Urukiramende

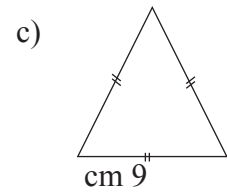
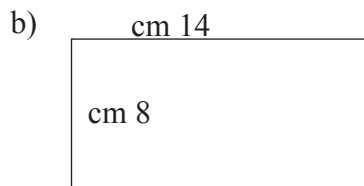
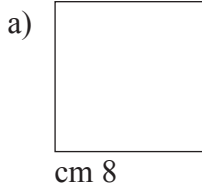
- | | | |
|-----------------|----------------|----------------|
| 2) Impuzampembe | 5) Mpandeshatu | 8) Mpandeshatu |
| 3) Ubugari | 6) Ingwagati | |

- | | | |
|--------------------|-----------------|-----------------|
| b) 1) Umurambararo | 4) Akarambararo | 7) Akarambararo |
| 2) Akarambararo | 5) Akarambararo | 8) Akarambararo |
| 3) Umurambararo | 6) Akarambararo | |

d. Imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire

- 1) Uzuza n'ijambo rikwiye
 - a) Kare igira impande zingana n'imfuruka zigororotse.
 - b) Uruhande rurerure rw'urukiramende rwitwa ...
 - c) Uruhande rugufi rw'urukiramende rwitwa ...
 - d) Mpandeshatu ndinganire igira impande zingana n'imfuruka ... zingana.
 - e) Akadomo ko hagati mu ruziga kitwa ...
 - f) Umurongo ugororotse uca mu izingiro ry'uruziga ukagera ku muzenguruko witwa....

- 2) Shaka umuzenguruko w'aya mashushongero



- 3) Shaka umuzenguruko wa kare ifite cm 25 z'uruhande.
- 4) Shaka umuzenguruko w'urukiramende rufite cm 19 z'uburebure na cm 11 z'uruhande.

e. Ibisubizo by'imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu mwigire

- 1)
 - a) Kare igira impande 4 zingana n'imfuruka 4 zigororotse.
 - b) Uruhande rurerure rw'urukiramende rwitwa "Uburebure".
 - c) Uruhande rugufi rw'urukiramende rwitwa "Ubugari".
 - d) Mpandeshatu ndinganire igira impande eshatu zingana n'imfuruka 3 zingana.
 - e) Umurongo ugororotse uca mu izingiro ry'uruziga ukagera ku muzenguruko witwa "Umurambararo".
- 2)
 - a) $\text{cm } 8 \times 4 = \text{cm } 32$
 - b) $(\text{cm } 14 + \text{cm } 8) \times 2 = \text{m } 44$
 - c) $\text{cm } \times 3 = \text{cm } 27$
- 3) $\text{cm } 25 \times 4 = \text{cm } 1000$
- 4) $(\text{cm } 19 + \text{cm } 11) \times 2 = \text{cm } 60$

f. Imyitozo y'umwihariko ihabwa abanyeshuri bihuta cyane mu myigire kurusha abandi n'ibisubizo byayo

- 1) Shushanya:
 - a) Kare ifite cm 9 z'uruhande
 - b) urukiramende rufite cm 12 z'uburebure na cm 8 z'ubugari
 - c) Mpandeshatu ndinganire ifite cm 10 z'uruhande
 - d) Mpandeshatu nyampanga
 - e) Mpandeshatu nyanguni
 - f) Mpandeshatu ibonetse yose
 - g) Uruziga rufite cm 12 z'umurambararo
- 2) Shaka umuzenguruko w'urukiramende rufite cm 75 z'uburebure na cm 55 z'ubugari.
- 3) Shaka umuzenguruko w'umurima ufite ishusho ya kare upima m 256 z'uruhande.
- 4) Shaka umuzenguruko wa mpandeshatu ifite impande zipima cm 18, cm 25 na cm 37.
- 5) Sobanura ibintu by'ingenzi biranga uruziga.

g. Ibisubizo by'imyitozo y'umwihariko ihabwa abanyeshuri bihuta cyane mu myigire kurusha abandi.

1. Ibisubizo biratandukanye.
2. Umuzenguruko: $(\text{cm}75 + \text{cm } 55) \times 2 = 260 \text{ cm}$
3. Umuzenguruko: $\text{m } 256 \times 4 = \text{m } 1024$
4. Umuzenguruko: $\text{cm } 18 + \text{cm } 25 + \text{cm } 37 = \text{cm } 80$
5. Uruziga rurangwa n'ibintu 3 by'ingenzi ari byo:
 - Akarambararo
 - Umurambararo
 - Izingiro

Umutwe wa 12: Ikinyatuzu

12.1 Ubushobozi bw'ingenzi bugamijwe

Kubaka ikinyatuzu, kurangamo utudomo ku mbariro n'inkingi bitarenga 10. Gushushanya amashushongero mu kinyatuzu.

12.2 Ibyizwe mbere bifitanye isano n'uyu mutwe

Gutahura ibiranga ikinyatuzu k'imbariro zitarenga 5

12.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho

- *Ubwuzuzanye bw'ibitsina* byombi mu gukora imyitozo nta vangura.
- *Gufata neza ibidukikije* mu gihe ashaka imfashanyigisho atangiza ibidukikije, asukura aho akorera cyangwa afata neza imfashanyigisho yakoresheje.
- *Umuco wo gukoresha neza umutungo* igihe akoresha ibikoresho binyuranye atabyagiza akora ikinyatuzu.

12.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe

- *Gushyikirana n'abandi* igihe umunyeshuri akorera mu matsinda cyangwa afatanye n'abandi.
- *Gukoresha imvugo isobanutse* igihe umunyeshuri akora ikinyatuzu asobanura ibikiranga.
- *Kugira amashyushyu* yo guhora yiyungura ubumenyi ku kinyatuzu.
- *Kwikemurira ibibazo* mu gihe yishakira ubwe imfashanyigisho yikorera ikinyatuzu.

12.5 Amagambo umunyeshuri yunguka muri uyu mutwe

Inkingi: imirongo ihagaze ikoze ikinyatuzu

Imbariro: imirongo itambitse ikoze ikinyatuzu

Kuranga: kwerekana aho akadomo kari mu kinyatuzu wifashishije imbariro n'inkingi

Impembe : utudomo turi ku mfuruka zikozwe n'impane z'amashushongero

12.6 Uburyo bwo gusesengura ikibazo nyamukuru

- Umwarimu asomesha agakuru kajyanye n'ikibazo cy'umunyeshuri wahagarariye abandi mu irushanwa ryo gushushanya aratsindwa.
- Asaba abanyeshuri kukaganiraho no kugatangaho ibitekerezo bagaragaza ibyo yagombaga gukora n'uko yagombaga kubikora.
- Abasobanurira ko ibisubizo nyabyo bazajya babibona mu masomo bagiye kwiga muri uyu mutwe.

12.7 Uko umwarimu yita by'umwihariko ku bafite ibibazo byihariye yigisha uyu mutwe

- Abafata bitinze bategurire imyitozo usanga mu gitabo cy'umwarimu; yoroshye ugereranyije n'iy'abandi.
- Abafite ubumuga bw'ingingo banza umenye izo ari zo ubategurire imfashanyigisho zihariye n'imyitozo wagenera buri wese.
- Abafite impano yo kumva no gukora vuba cyane, bahe imyitozo usanga mu gitabo cy'umwarimu, ituma batarangaza abandi.

12.8 Ibyigwa biri muri uyu mutwe

Inomero	Ibyigwa	Umubare w'amasomo: 6
1	Ibiranga ikinyatuzu	1
2	Kuranga akadomo mu kinyatuzu	2
3	Gushushanya amashushongero mu kinyatuzu	2
4	Isuzuma risoza umutwe	1

12.9 Imyigishirize ya buri kigwa

12.9.1 Ikigwa cya mbere: Ibiranga ikinyatuzu (Isomo 1)

a. Intego

Ubumenyi

Gusobanukirwa ibiranga ikinyatuzu.

Ubumenyigiro

Gutandukanya ibiranga ikinyatuzu.

Ubukeshya

Kwitegereza, gushishoza no gukora ibibereye ijisho.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gutandukanya ibiranga ikinyatuzu.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe bashushanya ikinyatuzu.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

Impapuro nini zikomeye, uducamurongo, metero, inguni, amakaramu anyuranye, impapuro n'ibikarito.

d. Ibikorwa by'imyigire n'imyigishirize

- Shushanya ikinyatuzu usabe abanyeshuri kukitegereza maze bavuge ibikiranga.
- Shyira abanyeshuri mu matsinda maze ubahe gushushanya ikinyatuzu bishakiye maze baze gusobanura ibikiranga.
- Saba buri munyeshuri gushushanya ikinyatuzu no gusobanura ibiranga ikinyatuzu yashushanyije.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make ibiranga ikinyatuzu.

f. Isuzuma

Guha abanyeshuri igikorwa cya 1 kiri ku rupapuro rwa 256 mu gitabo cy'umunyeshuri ku kubaka ikinyatuzu.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Ibiranga ikinyatuzu

Igikorwa cya 1 ku rupapuro rwa 256 mu gitabo cy'umunyeshuri

- | | |
|-----------------------------|-------------|
| a) Imirongo ihagaze ni 10 | c) Inkingi |
| b) Imirongo itambitse ni 10 | d) Imbariro |

12.9.2 Ikigwa cya kabiri: Kuranga akadomo mu kinyatuzu (Amasomo 2)

a. Intego

Ubumenyi

Gusobanukirwa uko baranga akadomo mu kinyatuzu.

Ubumenyigiro

Kuranga akadomo mu kinyatuzu.

Ubukeshya

Kwitegereza, gushishoza no gukora ibibereye ijisho.

b. Imyitozo y'isubiramo/Intangiriro

- Imyitozo inyuranye yo kuranga akadomo mu kinyatuzu.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe baranga akadomo mu kinyatuzu.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

Impapuro nini zikomeye, uducamurongo, metero, inguni, amakaramu anyuranye, impapuro n'ibikarito.

d. Ibikorwa by'imyigire n'imyigishirize

- Shyira abanyeshuri mu matsinda bashushanye ikinyatuzu maze uge ubabwira

bashyire utudomo aho imbariro n'inkingi bihurira.

- Yobora buri munyeshuri ashushanye ikinyatuzu maze umuhe kuranga utudomo mu mwanya ushaka ko tujyamo mu kinyatuzu yashushanyije.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko baranga akadomo mu kinyatuzu.

f. Isuzuma

Guha abanyeshuri Nsuzuma ngusuzume iri ku rupapuro rwa 257 mu gitabo cy'umunyeshuri ku baranga akadomo mu kinyatuzu.

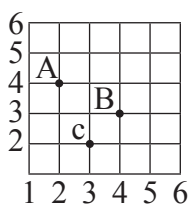
g. Ibisubizo by'imyitozo n'ibikorwa biri muri iki kigwa

Kuranga akadomo mu kinyatuzu

Igikorwa cya 2 ku rupapuro rwa 257 mu gitabo cy'umunyeshuri

A(6,7) B. (3,6) C(5,5) D(8,3) E (2,2)

Nsuzuma ngusuzume iri ku rupapuro rwa 257 mu gitabo cy'umunyeshuri



Igikorwa cya 2 ku rupapuro rwa 257 mu gitabo cy'umunyeshuri

A (3,7) B (6,6) C. (3,5) D (4,3) E (6,2)

12.9.3 Ikigwa cya gatatu: Gushushanya amashushongerero mu kinyatuzu (Amasomo 2)

a. Intego

Ubumenyi

Kugaragaza ishushongerero mu kinyatuzu.

Ubumenyigiro

Gushushanya ishushongerero mu kinyatuzu.

Ubukeshya

- Kwitegereza, gushishoza no gukora ibibereye ijisho.
- Kugaragaza ubushobozi bwo gushyira ikintu mu mwanya wacyo.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye yo gushushanya mu kinyatuzu.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe bashushanya

mu kinyatuzu.

- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

Impapuro nini zikomeye, uducamurongo, metero, inguni, amakaramu anyuranye, impapuro n'ibikarito.

d. Ibikorwa by'imyigishire n'imyigishirize

- Shushanya ibinyatuzu bitatu maze ushyiremo kimwe ugishushanyemo kare, ikindi urukiramende n'icya gatatu mpandeshatu maze usabe abanyeshuri kukitegereza bagasobanura uko buri kinyampande cyashushanyijwe.
- Saba abanyeshuri babiribabiri gushushanya ikinyatuzu bakagishyiramo ikinyampande bishakiye haba kare, urukiramende cyangwa mpandeshatu.
- Yobora buri munyeshuri ashushanye ikinyatuzu maze agishushanyemo ikinyampande yishakiye mu byo yize.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make uko bashushanya ishushongero mu kinyatuzu.

f. Isuzuma

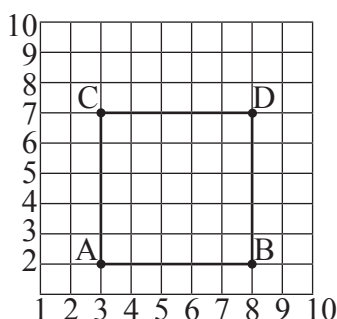
Guha abanyeshuri imyitozo iri ku rupapuro rwa 262 mu gitabo cy'umunyeshuri yo gushushanya ishushongero mu kinyatuzu.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gushushanya amashusho ngero mu kinyatuzu no kuranga impande zayo

Gushushanya kare mu kinyatuzu

Igikorwa cya 2 ku rupapuro rwa 258 mu gitabo cy'umunyeshuri

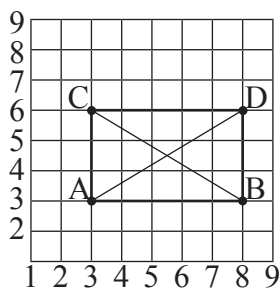


Gushushanya urukiramende mu kinyatuzu

Igikorwa cya 1 ku rupapuro rwa 259 mu gitabo cy'umunyeshuri

Kirerekana ishusho y'urukiramende

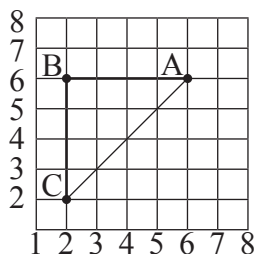
Igikorwa cya 2 ku rupapuro rwa 259 mu gitabo cy'umunyeshuri



Tubonye ishusho y'urukiramende n'impuzampembe

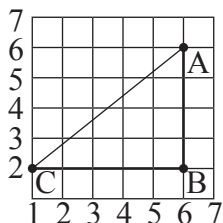
Gushushanya mpandeshatu mu kinyatuzu

Igikorwa cya 2 ku rupapuro rwa 260 mu gitabo cy'umunyeshuri



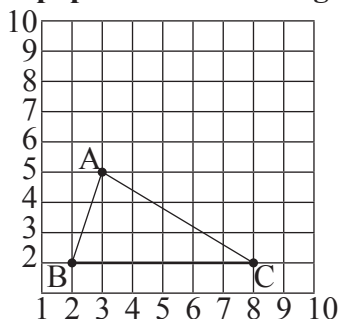
Tubonye mpandeshatu nyanguni

Reka nisuzume iri ku rupapuro rwa 261 mu gitabo cy'umunyeshuri



Tubonye mpandeshatu nyanguni

Nsuzuma ngusuzume iri ku rupapuro rwa 261 mu gitabo cy'umunyeshuri



Imyitozo iri ku rupapuro rwa 262 mugitabo cy'umunyeshuri.

Ibisubizo biratandukanye bitewe n'uko buri munyeshuri azashushanya ndetse akanaranga ibinyampande yashushyanye.

12.10 Gusozza umutwe

a. Inshamake y'ibikubiye muri uyu mutwe

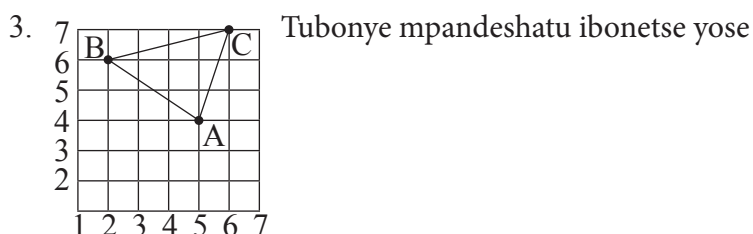
- Ibiranga ikinyatuzu.
- Kuranga akadomo ku kinyatuzu.
- Gushushanya amashushongero mu kinyatuzu no kuranga impembe zayo.

b. Ubumenyi bw'inyongera umwarimu asabwa kugira

- Kumenya kuyobora ibikorwa byose kandi yita kuri buri munyeshuri nta we asize inyuma.
- Gusobanura ku buryo bwimbitse ibirebana no gushushanya ishushongero mu kinyatuzu.
- Gutegura no gukoresha neza imfashanyigisho zinyuranye.
- Kumenya uko yacengeza ingingo nsanganyamasomo igihe yigisha Imibare.
- Kumenya neza imyigishirize y'Imibare ijyanye n'integanyanyigisho ishingiyeye ku bushobozi.
- Kumenya uko bashushanya byihuse ishushongero iryo ari ryo ryose mu kinyatuzu.
- Kumenya neza gushushanya akoresheje intoki n'ibikoresho bya Jewometiri.

c. Ibisubizo by'isuzuma risoza umutwe wa 12 riri ku rupapuro rwa 262 mu gitabo cy'umunyeshuri.

1. A (2,8) B (5,8) C (3,4) D (8,3) E (5,2)
2. a) kare b) urukiramende c) mpandeshatu



d. Imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire yabo

Shushanya Kare n'urukiramende ushaka mu kinyatuzu

e. Imyitozo y'umwihariko ihabwa abanyeshuri bafite impano yo gufata vuba no kwihuta kurusha abandi mu myigire yabo

Shushanya kare, urukiramende, mpandeshatu mu kinyatuzu, ukore amashusho 2 atandukanye kuri buri bwoko.

Umutwe wa 13: Umubare ubura mu iteranya, ikuramo, ikuba cyangwa mu igabanya

13.1 Ubushobozi bw'ingenzi bugamijwe

Gushaka umubare ubura uhereye ku mategeko y'ibara no kugaragaza itegeko rikoreshwa.

13.2 Ibyizwe mbere bifitanye isano n'uyu mutwe

Gutahura umubare ubura mu iteranya, ikuramo, ikuba n'igabanya byizwe mu mwaka wa kabiri.

13.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho

- *Ubwuzuzanye bw'ibitsina byombi* mu gukora imyitozo nta vangura.
- *Umuco w'amahoro* mu gihe akorana na bagenzi be mu bwumvikane nta we abangamiye.
- *Umuco wo gukoresha neza umutungo* igihe akoresha ibibarisho atabyangiza.

13.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe

- *Gukoresha imvugo isobanutse* igihe atahura umubare ubura mu iteranya, ikuramo, ikuba n'igabanya asobanura n'uko bikorwa.
- *Kugira amashyushyu* yo guhora yiyungura ubumenyi mu mibare.
- *Kwikemurira ibibazo* mu gihe akoresha amategeko y'ibara abara, neza ibintu byose, mu buzima busanzwe.

13.5 Amagambo umunyeshuri yunguka muri uyu mutwe

Inganyagaciro: imibare ingana ariko umwe urimo umubare utazwi

Inshoza: ubumenyi bw'ibanze

13.6 Uburyo bwo gusesengura ikibazo nyamukuru

Umwarimu asomesha agakuru kajyanye n'ikibazo k'abana bagiye mu irushanwa bakaritsinda bahembwa buri wese ntamenye agaciro k'ibyo yahembwe.

- Asaba abanyeshuri kukaganiraho no kugatangaho ibitekerezo bagaragaza icyo bakeneye gusobanukirwa mu mibare.
- Abasobanurira ko ibisubizo nyabyo bazajya babibona mu masomo bagiye kwiga muri uyu mutwe.

13.7 Uko umwarimu yita by'umwihariko ku bafite ibibazo byihariye yigisha uyu mutwe

- Abafata bitinze bategurire imyitozo usanga mu gitabo cy'umwarimu; yoroshye ugereranyije n'iy'abandi.
- Abafite ubumuga bw'ingingo banza umenye izo ari zo ubategurire imfashanyigisho zihariye n'imyitozo wagenera buri wese .

- Abafite impano yo kumva no gukora vuba cyane bahe imyitozo usanga mu gitabo cy’umwarimu, ituma batarangaza abandi .

13.8 Ibyigwa biri muri uyu mutwe

	Urutonde rw’ibygwa	Umubare w’amasomo: 12
1	Gutahura umubare ubura mu iteranya, ikuramo, ikuba n’igabanya	6
2	Inshoza y’inganyagaciro n’ikimenyetso =	4
3	Isuzuma risoza umutwe	2

13.9 Imyigishirize ya buri kigwa

13.9.1 Ikigwa cya 1: Gutahura umubare ubura mu iteranya, ikuramo, ikuba, igabanya no mu rukurikirane rw’imibare (Amasomo 8)

a. Intego

Ubumenyi

Gusobanukirwa itegeko ryifashishwa mu gutahura umubare ubura mu iteranya, ikuramo, ikuba n’igabanya.

Ubumenyingiro

Gutahura imibare ubura mu iteranya, ikuramo, ikuba n’igabanya.

Ubukeshya

Gutekereza neza kandi vuba.

b. Imyitozo y’isubiramo /Intangiriro

- Imyitozo inyuranye yo gutahura umubare ubura mu iteranya, ikuramo, ikuba, igabanya no mu rukurikirane rw’imibare.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe batahura umubare ubura.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

Imbonerahamwe y’ibara, ikibarisho n'amakarita y’imibare ari mu mabara atandukanye.

d. Ibikorwa by’imyigire n’imyigishirize

- Kwerekera abanyeshuri uko batahura umubare ubura mu ruhererekane rw’imibare.
- Gushyira abanyeshuri mu matsinda bagakora imyitozo yo gutahura imibare ibura mu ruhererekane rw’imibare.
- Gukora udupapuro dutandukanye turiho imyitozo yo gushaka umubare ubura mu rukurikirane rw’imibare ukadushyira mu gakarito maze buri munyeshuri akajya gutombora agapapuro kariho umwitozo agahita awukora ndetse akanasobanura uko yawukoze.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make amategeko akurikizwa mu gutahura umubare ubura.

e. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 265, 266 na 267 mu gitabo cy'umunyeshuri ku gutahura umubare ubura mu iteranya, ikuramo, ikuba, igabanya no mu rukurikirane rw'ibara.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Gutahura umubare ubura mu iteranya.

Igikorwa cyo kiri ku rupapuro rwa 263 mu gitabo cy'umunyeshuri

$$\begin{array}{r} \text{a) } 6\,307 \\ + 2\,442 \\ \hline 8\,749 \end{array}$$

$$\begin{array}{r} \text{b) } 5\,895 \\ + 2\,154 \\ \hline 8\,049 \end{array}$$

$$\begin{array}{r} \text{c) } 4\,387 \\ + 5\,511 \\ \hline 9\,848 \end{array}$$

Nsuzuma ngusuzume iri ku rupapuro rwa 264 mu gitabo cy'umunyeshuri

$$\begin{array}{r} \text{a) } 7\,684 \\ + 1\,112 \\ \hline 8\,796 \end{array}$$

$$\begin{array}{r} \text{b) } 2\,443 \\ + 1\,316 \\ \hline 3\,759 \end{array}$$

$$\begin{array}{r} \text{c) } 4\,367 \\ + 3\,431 \\ \hline 6\,798 \end{array}$$

Reka nisuzume iri ku rupapuro rwa 264 mu gitabo cy'umunyeshuri

$$\begin{array}{r} \text{a) } 5\,624 \\ + 4\,121 \\ \hline 9\,745 \end{array}$$

$$\begin{array}{r} \text{b) } 2\,467 \\ + 4\,331 \\ \hline 6\,798 \end{array}$$

$$\begin{array}{r} \text{c) } 3\,456 \\ + 4\,523 \\ \hline 7\,979 \end{array}$$

Gutahura umubare ubura mu ikuramo.

Igikorwa kiri ku rupapuro rwa 264 mu gitabo cy'umunyeshuri

$$\begin{array}{r} \text{a) } 9\,562 \\ - 8\,132 \\ \hline 1\,430 \end{array}$$

$$\begin{array}{r} \text{b) } 4\,321 \\ - 2\,120 \\ \hline 2\,201 \end{array}$$

$$\begin{array}{r} \text{c) } 7\,767 \\ - 3\,445 \\ \hline 4\,322 \end{array}$$

Nsuzuma ngusuzume iri ku rupapuro rwa 264 mu gitabo cy'umunyeshuri

$$\begin{array}{r} \text{a) } 2\,130 \\ - 1\,120 \\ \hline 1\,010 \end{array}$$

$$\begin{array}{r} \text{b) } 6\,621 \\ - 3\,420 \\ \hline 2\,201 \end{array}$$

$$\begin{array}{r} \text{c) } 5\,456 \\ - 4\,211 \\ \hline 1\,245 \end{array}$$

Reka nisuzume iri ku rupapuro rwa 265 mu gitabo cy'umunyeshuri

$$\begin{array}{r} \text{a) } 5\,956 \\ - 1\,321 \\ \hline 4\,635 \end{array}$$

$$\begin{array}{r} \text{b) } 4\,597 \\ - 1\,382 \\ \hline 3\,215 \end{array}$$

$$\begin{array}{r} \text{c) } 5\,974 \\ - 1\,653 \\ \hline 4\,321 \end{array}$$

Imyitozo iri ku rupapuro rwa 265 mu gitabo cy'umunyeshuri

a) $6\,694$

$$\begin{array}{r} - 1\,374 \\ \hline \end{array}$$

$5\,320$

b) $2\,799$

$$\begin{array}{r} - 1\,259 \\ \hline \end{array}$$

$1\,540$

c) $3\,772$

$$\begin{array}{r} - 1\,452 \\ \hline \end{array}$$

$2\,321$

Gutahura umubare ubura mu ikuba**Igikorwa kiri ku rupapuro rwa 265 mu gitabo cy'umunyeshuri**

a) $4 \times 250 = 1\,000$

c) $945 \times 7 = 6\,615$

e) $8 \times 789 = 6\,312$

b) $1\,610 \times 5 = 8\,050$

d) $564 \times 9 = 5\,076$

f) $6 \times 987 = 5\,922$

Nsuzuma ngusuzume iri ku rupapuro rwa 266 mu gitabo cy'umunyeshuri

a) 154

b) 324

c) 451

$$\begin{array}{r} \times 9 \\ \hline \end{array}$$

$1\,386$

$$\begin{array}{r} \times 8 \\ \hline \end{array}$$

$2\,592$

$$\begin{array}{r} \times 9 \\ \hline \end{array}$$

459

Reka nisuzume iri ku rupapuro rwa 266 mu gitabo cy'umunyeshuri

a) 684

b) 492

c) $1\,956$

$$\begin{array}{r} \times 7 \\ \hline \end{array}$$

$4\,788$

$$\begin{array}{r} \times 6 \\ \hline \end{array}$$

$2\,952$

$$\begin{array}{r} \times 5 \\ \hline \end{array}$$

$9\,780$

Imyitozo iri ku rupapuro rwa 266 mu gitabo cy'umunyeshuri

a) $2\,396$

b) $3\,289$

c) $4\,897$

$$\begin{array}{r} \times 4 \\ \hline \end{array}$$

$9\,584$

$$\begin{array}{r} \times 3 \\ \hline \end{array}$$

$9\,867$

$$\begin{array}{r} \times 2 \\ \hline \end{array}$$

$9\,794$

Gutahura umubare ubura mu igabanya**Igikorwa cya 2 kiri ku rupapuro rwa 267 mu gitabo cy'umunyeshuri**

a) $70 : 5 = 350$

d) $147 : 21 = 7$

g) $9\,672 : 3\,224 = 3$

b) $360 : 90 = 4$

e) $15 : 6 = 90$

h) $9\,819 : 1\,091 = 9$

c) $15 : 8 = 120$

f) $225 : 75 = 3$

i) $5\,274 : 586 = 9$

Nsuzuma ngusuzume iri ku rupapuro rwa 267 mu gitabo cy'umunyeshuri

a) $648 : 81 = 8$

b) $729 : 81 = 9$

c) $847 : 121 = 7$

Reka nisuzume iri ku rupapuro rwa 267 mu gitabo cy'umunyeshuri

a) $270 : 6 = 45$

b) $445 : 5 = 89$

c) $500 : 4 = 125$

Imyitozo iri ku rupapuro rwa 267 mu gitabo cy'umunyeshuri

a) $8\,795 : 1\,759 = 5$

b) $7\,362 : 9 = 818$

c) $9\,672 : 1\,598 = 6$

Inshoza y'inganyagaciro.**Inganyagaciro mu iteranya****Igikorwa cya 2 kiri ku rupapuro rwa 268 mu gitabo cy'umunyeshuri**

- a) $80 + 30 = 50 + 60$ c) $265 + 35 = 250 + 50$
 b) $150 + 95 = 200 + 45$ d) $479 + 51 = 350 + 180$

Nsuzuma ngusuzume iri ku rupapuro rwa 268 mu gitabo cy'umunyeshuri

- a) $913 + 97 = 803 + 207$ c) $909 + 597 = 987 + 519$
 b) $495 + 575 = 195 + 875$ d) $825 + 795 = 962 + 658$

Reka nisuzume iri ku rupapuro rwa 268 mu gitabo cy'umunyeshuri

- a) $875 + 840 = 1\,256 + 459$ b) $3\,020 + 1\,575 = 2\,145 + 875$
 c) $654 + 746 = 213 + 598$ d) $1\,208 + 726 = 576 + 1\,358$

Imyitozo iri ku rupapuro rwa 268 mu gitabo cy'umunyeshuri

- a) $1\,758 + 722 = 1\,526 + 954$ c) $1\,546 + 647 = 1\,208 + 985$
 b) $398 + 575 = 215 + 758$ d) $2\,801 + 1\,267 = 2\,567 + 1\,501$

Inganyagaciro mu ikuramo

Igikorwa kiri ku rupapuro rwa 269 mu gitabo cy'umunyeshuri

- a) $235 - 45 = 540 - 350$ c) $430 - 180 = 320 - 70$
 b) $725 - 135 = 600 - 10$ d) $978 - 435 = 763 - 220$

Nsuzuma ngusuzume iri ku rupapuro rwa 269 mu gitabo cy'umunyeshuri

- a) $685 - 175 = 1\,380 - 870$ c) $1\,037 - 459 = 897 - 319$
 b) $185 - 75 = 485 - 375$ d) $1\,765 - 975 = 1\,785 - 995$

Reka nisuzume iri ku rupapuro rwa 269 mu gitabo cy'umunyeshuri

- a) $456 - 190 = 564 - 298$ c) $667 - 345 = 856 - 534$
 b) $975 - 686 = 721 - 432$ d) $768 - 548 = 729 - 509$

Imyitozo iri ku rupapuro rwa 270 mu gitabo cy'umunyeshuri

- a) $765 - 348 = 622 - 205$ c) $1\,567 - 1\,198 = 2\,018 - 1\,649$
 b) $1\,234 - 978 = 981 - 725$ d) $1\,453 - 832 = 1\,519 - 898$

Inganyagaciro mu ikuba

Igikorwa kiri ku rupapuro rwa 270 mu gitabo cy'umunyeshuri

- a) $9 \times 18 = 6 \times 27$ c) $21 \times 7 = 49 \times 3$
 b) $36 \times 4 = 9 \times 16$ d) $120 \times 5 = 75 \times 8$

Nsuzuma ngusuzume iri ku rupapuro rwa 270 mu gitabo cy'umunyeshuri

- a) $5 \times 40 = 25 \times 8$ c) $88 \times 5 = 110 \times 4$
 b) $9 \times 24 = 72 \times 3$ d) $98 \times 6 = 196 \times 3$

Reka nisuzume iri ku rupapuro rwa 270 mu gitabo cy'umunyeshuri

- a) $25 \times 8 = 100 \times 2$ c) $125 \times 4 = 100 \times 5$

b) $45 \times 8 = 6 \times 60$

d) $135 \times 9 = 27 \times 45$

Imyitozo iri ku rupapuro rwa 271 mu gitabo cy'umunyeshuri

a) $420 \times 7 = 35 \times 84$

c) $3 \times 228 = 76 \times 9$

b) $105 \times 89 = 5 \times 1\,869$

d) $5 \times 1\,794 = 138 \times 65$

Inganyagaciro mu igabanya

Igikorwa cya 2 kiri ku rupapuro rwa 271 mu gitabo cy'umunyeshuri

a) $824 : 8 = 412 : 4$

c) $945 : 9 = 315 : 3$

b) $4536 : 9 = 2\,016 : 4$

d) $2\,828 : 7 = 2\,020 : 5$

Nsuzuma ngusuzume iri ku rupapuro rwa 271 mu gitabo cy'umunyeshuri

a) $636 : 6 = 212 : 2$

c) $90 : 9 = 100 : 10$

b) $81 : 9 = 72 : 8$

d) $546 : 6 = 455 : 5$

Reka nisuzume iri ku rupapuro rwa 271 mu gitabo cy'umunyeshuri

a) $808 : 8 = 404 : 4$

c) $918 : 9 = 306 : 3$

b) $581 : 7 = 498 : 6$

d) $620 : 5 = 992 : 8$

Imyitozo iri ku rupapuro rwa 272 mu gitabo cy'umunyeshuri

a) $2\,925 : 9 = 1\,950 : 6$

c) $2464 : 8 = 2772 : 9$

b) $872 : 8 = 436 : 4$

d) $12 : 4 = 9 : 3$

Gushaka umubare ubura mu rukurikirane rw'imibare

Gushaka intera idahinduka yakoreshejwe mu rukurikirane rw'imibare ruhera ku mubare muto rujya ku mubare munini

Igikorwa cya 2 kiri ku rupapuro rwa 272 mu gitabo cy'umunyeshuri

a) 855, 1 355, 1 855, 2 355 Intera idahinduka ni $1\,355 - 855 = 500$

b) 205, 505, 805, 1105 Intera idahinduka ni $505 - 205 = 300$

Nsuzuma ngusuzume iri ku rupapuro rwa 272 mu gitabo cy'umunyeshuri

a) 1 005, 1 075, 1 145 Intera idahinduka ni $1\,075 - 1\,005 = 70$

b) 239, 300, 361, 422 Intera idahinduka ni $300 - 239 = 61$

c) 415, 600, 785, 870 Intera idahinduka ni $600 - 415 = 185$

Reka nisuzume iri ku rupapuro rwa 272 mu gitabo cy'umunyeshuri

a) 295, 333, 371, 409 Intera idahinduka ni $333 - 295 = 38$

b) 178, 299, 420, 441 Intera idahinduka ni $299 - 178 = 121$

Imyitozo iri ku rupapuro rwa 273 mu gitabo cy'umunyeshuri

a) 397, 630, 863, 1096 Intera idahinduka ni $630 - 397 = 233$

b) 524, 700, 876, 1052 Intera idahinduka ni $700 - 524 = 176$

Gushaka intera idahinduka yakoreshejwe mu rukurikirane rw'imibare ruhera ku mubare munini rujya ku mubare muto

Igikorwa cya 2 kiri ku rupapuro rwa 273 mu gitabo cy'umunyeshuri

a) 2 456, 2 306, 2 156, 2 006 Intera idahinduka ni $2\,456 - 2\,306 = 150$

c) 4 032, 3 957, 3 882, 3 807 Intera idahinduka ni $4\,032 - 3\,957 = 75$

b) 1 890, 1 751, 1 612, 1 473 Intera idahinduka ni $1\,890 - 1\,751 = 214$

d) 2 476, 3 000, 3 524, 4 048 Intera idahinduka ni $3\,000 - 2\,476 = 524$

Nsuzuma ngusuzume iri ku rupapuro rwa 273 mu gitabo cy'umunyeshuri

a) 2 018, 1 653, 1 288, 923 Intera idahinduka ni $2\,018 - 1\,653 = 365$

b) 956, 878, 800, 722 Intera idahinduka ni $956 - 878 = 78$

Reka nisuzume iri ku rupapuro rwa 273 mu gitabo cy'umunyeshuri

a) 756, 641, 526, 411 Intera idahinduka ni $756 - 641 = 115$

b) 1 879, 1 811, 1 743, 1 675 Intera idahinduka ni $1\,879 - 1\,811 = 68$

Imyitozo iri ku rupapuro rwa 274 mu gitabo cy'umunyeshuri

a) 1 519, 1 470, 1 421, 1 372 Intera idahinduka ni $1\,519 - 1\,470 = 49$

b) 976, 937, 898, 859 Intera idahinduka ni $976 - 937 = 39$

c) 789, 691, 593, 495 Intera idahinduka ni $789 - 691 = 98$

Kuzaza urukurikirane rw'imibare ibura.

Igikorwa cya 2 kiri ku rupapuro rwa 274 mu gitabo cy'umunyeshuri

a) 3 456, 3 567, 3 678, 3 789, 3 900, 4 011 Intera idahinduka ni $3\,567 - 3\,456 = 111$

b) 4 256, 4 365, 4 474, 4 583, 4 692, 4 801 Intera idahinduka ni $4\,365 - 4\,256 = 109$

c) 1 994, 2 018, 2 042, 2 066, 2 090, 2 114 Intera idahinduka ni $2\,018 - 1\,994 = 24$

Nsuzuma ngusuzume iri ku rupapuro rwa 273 mu gitabo cy'umunyeshuri.

a) 1 897, 1 950, 2 003, 2 056, 2 109, 2 162 Intera idahinduka ni $1\,950 - 1\,897 = 53$

b) 7 564, 6 614, 5 664, 4 714, 3 764, 2 814 Intera idahinduka ni $7\,564 - 6\,614 = 950$

Reka nisuzume iri ku rupapuro rwa 275 mu gitabo cy'umunyeshuri

a) 4 000, 4 500, 5 000, 5 500, 6 000, 6 500 Intera idahinduka ni $4\,500 - 4\,000 = 500$

b) 3 480, 3 505, 3 530, 3 555, 3 580, 3 605 Intera idahinduka ni $3\,505 - 3\,480 = 25$

Imyitozo iri ku rupapuro rwa 274 mu gitabo cy'umunyeshuri

a) 5 469, 4 679, 3 889, 3 099, 2 309, 1 519 Intera idahinduka ni $5\,469 - 4\,679 = 790$

b) 4 325, 3 875, 3 425, 2 975, 2 525, 2 075 Intera idahinduka ni $4\,325 - 3\,875 = 450$

13.9.2 Ikigwa cya 2: Inshoza y'inganyagaciro n'ikimenyetso cya = (Amasomo 4)

a. Intego

Ubumenyi

Gusobanukirwa inshoza y'inganyagaciro.

Ubumenyigiro

Gutahura umubare ubura mu nganyagaciro.

Ubukeshya

Gutekereza neza kandi vuba.

b. Imyitozo y'isubiramo /Intangiriro

- Imyitozo inyuranye gutahura umubare ubura mu iteranya, ikuramo, ikuba n'igabanya.
- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe batahura umubare ubura
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo

c. Imfashanyigisho

- Imbonerahamwe y'ibara, ikibarisho n'amakarita y'imibare ari mu mabara atandukanye.
- Impapuro nini zikomeye, utubarisho tunyuranye.

d. Ibikorwa by'imyigire n'imyigishirize

- Yobora abanyeshuri bakore imyitozo ku nganyagaciro z'ibimenyetso byose by'ibanze bikoreshwa mu mibare.
- Gushyira abanyeshuri mu matsinda bagakora imyitozo ku nganyagaciro mu iteranya, ikuramo, ikuba n'igabanya.
- Gukora udupapuro dutandukanye turiho imyitozo ku nganyagaciro mu iteranya, ikuramo, ikuba n'igabanya ukadushyira mu gakarito maze buri munyeshuri akajya gutombora agapapuro kariho umwitozo agahita awukora ndetse akanasobanura uko yawukoze.

e. Ikomatany ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make amategeko akurikizw mu gutahura umubare ubura.

f. Isuzuma

Guha abanyeshuri imyitozo iri ku rupapuro rwa 268, 270, 271 na 272 mu gitabo cy'umunyeshuri ku gutahura umubare ubura mu nganyagaciro.

13.10 Gusozza umutwe

a. Inshamake y'ibikubiye muri uyu mutwe

- Amategeko yo gutahura umubare ubura mu iteranya, ikuramo, ikuba n'igabanya ry'imibare.
- Inshoza y'inganyagaciro.

b. Ubumenyi bw'inyongera umwarimu asabwa kugira

- Kumenya kuyobora ibikorwa byose kandi yita kuri buri munyeshuri nta we asize inyuma.
- Gusobanura ku buryo bwimbitse ibirebana amategeko akurikizwa mu gutahura umubare ubura mu iteranya, ikuramo, ikuba n'igabanya.
- Guhera ku nganyagaciro agatahura umubare ubura.
- Gutegura no gukoresha neza imfashanyigisho zinyuranye.
- Kumenya uko yacengeza ingingo nsanganyamasomo igihe yigisha Imibare.
- Kumenya neza imyigishirize y'Imibare ijyanye n'integanyanyigisho ishingiye ku bushobozi.
- Kumenya amoko y'inganayagaciro.

c. Ibisubizo by'isuzuma risoza umutwe wa 13 riri ku rupapuro rwa 274 mu gitabo cy'umunyeshuri

1) Tahura imibare ibura

$$\begin{array}{r} a) \quad 1\ 7\ 8\ 7 \\ + \quad 6\ 1\ 1\ 2 \\ \hline 7\ 8\ 9\ 9 \end{array}$$

$$\begin{array}{r} d) \quad 1\ 5\ 8 \\ \times \quad 8 \\ \hline 1264 \end{array}$$

$$\begin{array}{r} g) \quad 2\ 9\ 8\ 7 \\ - \quad 1\ 3\ 7\ 6 \\ \hline 1\ 6\ 1\ 1 \end{array}$$

$$\begin{array}{r} b) \quad 2\ 4\ 3 \\ \times \quad 9 \\ \hline 2187 \end{array}$$

$$\begin{array}{r} e) \quad 7\ 9\ 5\ 6 \\ - \quad 1\ 5\ 3\ 4 \\ \hline 6\ 4\ 2\ 2 \end{array}$$

$$\begin{array}{l} h) \quad 3612 : 4 = 903 \\ i) \quad 1575 : 5 = 315 \\ j) \quad 1678 : 2 = 839 \end{array}$$

$$\begin{array}{r} c) \quad 4\ 3\ 5\ 5 \\ + \quad 3\ 9\ 4\ 1 \\ \hline 8\ 2\ 9\ 6 \end{array}$$

$$\begin{array}{r} f) \quad 1\ 7\ 9 \\ \times \quad 6 \\ \hline 1\ 0\ 7\ 4 \end{array}$$

$$k) \quad 1326 : 6 = 221$$

2) Uzuzza izi nganyagaciro n'umubare ubura:

- | | |
|----------------------------|--------------------------------|
| a) $100 + 50 = 80 + 70$ | d) $9 \times 8 = 18 \times 4$ |
| b) $525 - 200 = 400 - 75$ | e) $25 \times 2 = 10 \times 5$ |
| c) $978 - 435 = 763 - 220$ | f) $728 : 8 = 364 : 4$ |

3) Shaka intera idahinduka yakoreshejwe muri uru rukurikirane rw'imibare:

- | | | | | | |
|-------|--------|-------|-------|-------|-------|
| a) 19 | b) 255 | c) 79 | d) 36 | e) 63 | f) 24 |
|-------|--------|-------|-------|-------|-------|

4) Uzuza uru rukurikirane rw'imibare:

- a) 1250, 1750, ..., ... b) 3400, 3100, ..., ... c) 2525, 5025

d. Imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire
Tahura umubare ubura

- a)
$$\begin{array}{r} 2 \bullet \bullet 0 \\ + 142 \\ \hline 2842 \end{array}$$
 b)
$$\begin{array}{r} 3568 \\ - \bullet \bullet \bullet \bullet \\ \hline 1457 \end{array}$$
 c)
$$\begin{array}{r} 3568 \\ \times 3 \\ \hline \bullet \bullet \bullet \bullet \end{array}$$
 d) $842 : \bullet = 421$

e) Ibisubizo by'imyitozo y'umwihariko ihabwa abanyeshuri bagenda buhoro mu myigire

- a)
$$\begin{array}{r} 2700 \\ + 142 \\ \hline 2842 \end{array}$$
 b)
$$\begin{array}{r} 3568 \\ - 2111 \\ \hline 1457 \end{array}$$
 c)
$$\begin{array}{r} 3568 \\ \times 3 \\ \hline 6633 \end{array}$$
 d) $842 : 2 = 421$

f) Imyitozo y'umwihariko ihabwa abanyeshuri bafite impano yo gufata vuba no kwihuta kurusha abandi mu myigire

1) Tahura umubare ubura

- a)
$$\begin{array}{r} 9 \bullet 15 \\ + 3 \bullet 6 \\ \hline 9801 \end{array}$$
 e)
$$\begin{array}{r} 9 \bullet 15 \\ - \bullet 3 \bullet 4 \\ \hline 1221 \end{array}$$

- b) $975 + 899 = \bullet + 926$
c) $148 \times 7 = \bullet \times 4$
d) $864 : 8 = \bullet : 6$

2) Uzuza urukurikirane rw'imibare

- a) 7 535, 7 405, 7 365, ..., ...
b) 9 876, 9 444, ..., ...

f) Ibisubizo by'imyitozo y'umwihariko ihabwa abanyeshuri bafite impano yo gufata vuba no kwihuta kurusha abandi mu myigire

1) Tahura umubare ubura

- a)
$$\begin{array}{r} 9415 \\ + 386 \\ \hline 9801 \end{array}$$
 b)
$$\begin{array}{r} 9615 \\ - 8394 \\ \hline 1221 \end{array}$$

- b) $975 + 899 = 948 + 926$
c) $148 \times 7 = 259 \times 4$
d) $864 : 8 = 648 : 6$

2) Uzuza urukurikirane rw'imibare

- a) 7 535, 7 405, 7 365, 7 236, 7 105
b) 9 876, 9 444, 9 012, 8 580

Umutwe wa 14: Ibishushanyo byifashishwa mu kubara

14.1 Ubushobozi bw'ingenzi bugamijwe

Gusesengura no gusobanura amakuru atangwa n'igishushanyo gikoreshwa mu kubara.

14.2 Ibyizwe mbere bifitanye isano n'uyu mutwe

Gutahura umubare ubura mu iteranya, ikuramo, ikuba n'igabanya byizwe mu mwaka wa kabiri.

14.3 Ubumenyi ku ngingo nsanganyamasomo buri muri uyu mutwe n'uko bugerwaho

- *Umuco w'amahoro* mu gihe akorana na bagenzi be mu bwumvikane nta we abangamiye.
- *Umuco wo gukoresha neza umutungo* igihe akoresha ibikoresho binyuranye akora igishushanyo kifashishwa mu kubara kandi yirinda kubyangiza.

14.4 Ubushobozi umunyeshuri azunguka muri uyu mutwe

- *Gushyikirana n'abandi* igihe umunyeshuri akorera mu matsinda cyangwa afatanyaga n'abandi.
- *Gukoresha imvugo isobanutse* igihe akoresha ibishushanyo byifashishwa mu ibara asobanura n'uko bikorwa.
- *Kugira amashyushyu* yo guhora yiyungura ubumenyi mu mibare.

14.5 Amagambo umunyeshuri yunguka muri uyu mutwe

Ingano: uko ibintu bingana

Gusesengura: gutanga amakuru yose agaragazwa n'igishushanyo bifashisha mu kubara

14.6 Uburyo bwo gusesengura ikibazo nyamukuru

Umwari mu asomesha agakuru kajyanye n'ikibazo cy'abanyeshuri basuye ikigo k'ibarurishamibare ntibasobanukirwe ibishushanyo byifashishwa mu kumenya umubare w'imodoka n'ubwoko bwazo zagenzuwe.

- Asaba abanyeshuri kukaganiraho no kugatangaho ibitekerezo bagaragaza icyo ibishushanyo byifashishwa mu mibare bibigisha.
- Abasobanurira ko ibisubizo nyabyo bazajya babibona mu masomo baziga.

14.7 Uko umwarimu yita by'umwihariko ku bafite ibibazo byihariye yigisha uyu mutwe

- Abafata bitinze bategurire imyitozo usanga mu gitabo cy'umwarimu; yoroshye ugereranyije n'iy'abandi.

- Abafite ubumuga bw'ingingo banza umenye izo ari zo ubategurire imfashanyigisho zihariye n'imyitozo wagenera buri wese .
- Abafite impano yo kumva no gukora vuba cyane bahe imyitozo usanga mu gitabo cy'umwarimu, ituma batarangaza abandi .

14.8 Ibyigwa biri muri uyu mutwe

	Ibyigwa	Umubare w'amasomo: 6
1	Gukora igishushanyo kifashishwa mu kubara	2
2	Gusesengura ibishushanyo byifashishwa mu kubara	3
3	Isuzuma risoza umutwe	1

14.9 Imyigishirize ya buri kigwa

14.9.1 Ikigwa cya mbere: Gukora igishushanyo kifashishwa mu kubara (Amasomo 2)

a. Intego

Ubumenyi

Gusobanukirwa uko bakora igishushanyo kifashishwa mu kubara.

Ubumenyigiro

Gukora igishushanyo kifashishwa mu kubara.

Ubukeshya

- Gutekereza neza kandi vuba.
- Kugira umuco wo gusesengura ibintu.

b. Imyitozo y'isubiramo /Intangiriro

- Guha abanyeshuri imfashanyigisho zihagije bari bwifashishe batahura umubare ubura.

c. Imfashanyigisho

Impapuro nini zikomeye, utubarisho tunyuranye.

d. Ibikorwa by'imyigire n'imyigishirize

- Kora amatsinda y'ibintu bitandukanye maze usabe abanyeshuri babyerekane bakoresheje igishushanyo kifashishwa mu kubara.
- Kora udupapuro dutandukanye turiho ibishushanyo byifashishwa mu kubara biriho ibintu bitandukanye udushyire mu gakarito maze buri munyeshuri age ajya gutombora agapapuro kariho igishushanyo ahita asobanura ingano y'ibintu byagaragajwe ku mashusho.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make amategeko akurikizwa mu gukora igishushanyo kifashishwa mu kubara.

f. Isuzuma

Guha abanyeshuri igikorwa cya 2 ku rupapuro rwa 277 iri mu gitabo cy'umunyeshuri ku gukora igishushanyo kifashishwa mu kubara.

g. Ibisubizo by'imyitozo n'ibikorwa bijyanye n'iki kigwa

Igikorwa cya 1 kiri kurupapuro rwa 276 mu gitabo cy'umunyeshuri

- Amapapayi 8 – Imineke 9 – Karoti 4 – Pome 10
- Ibihaza 7 – Amashu 6 – Inyanya 5

Igikorwa cya 2 kiri ku rupapuro rwa 277 mu gitabo cy'umunyeshuri

- Ibisokozo biringaniye n'umubare 6 – Amajagi aringaniye n' umubare 8
- Uburoso buringaniye n'umubare 9 – Ibihaza biringaniye n' umubare 7
- Inanasi ziringaniye n' umubare 12 – Avoka ziringaniye n'umubare 10
- Amagi aringaniye n' umubare 11

Igikorwa kiri kurupapuro rwa 279 mu gitabo cy'umunyeshuri

- A) – Amashati 4 y' umuhondo – Amakanzu 7
– Amashati 6 y'icyatsi kibisi – Amapantaro 5
– Amajipo 4 – Uburoso bw'irangi 3
– Amakoti y'imvura 8
- B) Ihene 5, ibinyabwoya 3, inzuki 6, ingona 2, ibinyenzi 7, ibinyugunyugu 4, imbwa 9.

14.9.2. Ikigwa cya kabiri: Gusesengura igishushanyo kifashishwa mu kubara (Amasomo 2)

a. Intego

Ubumenyi

Gusobanukirwa uko basesengura igishushanyo kifashishwa mu kubara.

Ubumenyigiro

Gusesengura igishushanyo kifashishwa mu kubara.

Ubukeshya

- Gutekerezwa neza kandi vuba.
- Kugira umuco wo gusesengura ibintu.

b. Imyitozo y'isubiramo / Intangiriro

- Imyitozo inyuranye gusesengura igishushanyo kifashishwa mu kubara iri mu gitabo cy'umunyeshuri.
- Guha abanyeshuri imfashanyigisho zihagiye bari bwifashishe mu gusesengura igishushanyo kifashishwa mu kubara.
- Gutegura uko ari bufashe abanyeshuri bafite ibyo bagenerwa byihariye mu myigire yabo.

c. Imfashanyigisho

Impapuro nini zikomeye, utubarisho tunyuranye.

d. IBikorwa by'imyigire n'imyigishirize

- Yobora abanyeshuri bakore ibishushanyo byifashishwa mu kubara bahereye ku bintu byagaragajwe cyangwa byatanzwe.
- Shyira abanyeshuri mu matsinda maze ubasabe gusesengura ibishushanyo byifashishwa mu mibare wabahaye maze bagaragaze ingano y'ibintu biri kuri ibyo bishushanyo.
- Kora udupapuro dutandukanye turiho ibishushanyo byifashishwa mu kubara biriho ibintu bitandukanye udushyire mu gakarito maze buri munyeshuri age ajya gutombora agapapuro kariho igishushanyo ahite agisesengura.

e. Ikomatanya ry'ibyizwe

Kuyobora abanyeshuri mu kuvuga muri make amategako akurikizwa mu gusesengura igishushanyo kifashishwa mu kubara.

f. Isuzuma

Guha abanyeshuri igikorwa B kiri ku rupapuro rwa 280 mu gitabo cy'umunyeshuri ku gusesengura igishushanyo kifashishwa mu kubara.

14.10 Gusoba umutwe

a. Inshamake y'ibikubiye muri uyu mutwe

Uko basesengura n'uko basobanura amakuru atangwa n'igishushanyo gikoreshwa mu kubara.

b. Ubumenyi bw'inyongera umwarimu asabwa kugira

- Kumenya kuyobora ibikorwa byose kandi yita kuri buri munyeshuri nta we asize inyuma.
- Gusobanura ku buryo bwimbitse ibirebana n'amoko y'ibishushanyo bikoreshwa mu kubara cyane cyane imikoreshereze yabyo mu buzima busanzwe.
- Gutegura no gukoresha neza imfashanyigisho zinyuranye.
- Kumenya uko yacengeza ingingo nsanganyamasomo igihe yigisha Imibare.
- Kumenya neza imyigishirize y'Imibare ijyanye n'integanyanyigisho ishingiye ku bushobozi.
- Kumenya uko basesengura amakuru atangwa n'ibishushanyo binyuranye bikoreshwa mu kubara.
- Kumenya gukoresha ibishushanyo byifashishwa mu kubara akoresheje mudasobwa.

c. Ibisubizo by'isuzuma risoza umutwe wa 14 riri ku rupapuro rwa 282 mu gitabo cy'umunyeshuri

Ibisubizo biratandukanye bitewe n'uburyo buri munyeshuri azakora ikibazo cya 1, icya 2 n' icya 3.

7							
6							
5							
4							
3							
2							
1							

Iki gishushanyo kiriho:

- Ibiceri 3 by'amafaranga 100
- Amagare 6
- Iminzani 5
- Metero buhine 7
- Amasaha 2
- Ikidongi 1
- Koka 4

d. Umwitozo w'umwihariko uhabwa abanyeshuri bagenda buhoro mu myigire yabo

Koresha igishushanyo bakoresha mu kubara ugaragazeho utuziga 4, kare 7, udukiramende 2

Igisubizo

7			
6			
5			
4			
3			
2			
1			

e. Imyitozo y'umwihariko ihabwa abanyeshuri bafite impano yo gufata vuba no kwihuta kurusha abandi mu myigire yabo

Ifashishe igishushanyo gikoreshwa mu mibare maze ushushanye werekana:

- a) Inka 4, imbeba 5, inkoko 7, imbwa 8
- b) Imineke 3, amacunga 6, inansi 9

15. Ibisubizo by'urugero rw'isuzuma risoza umwaka wa 3 riri ku rupapuro rwa 283 mu gitabo cy'umunyeshuri

A Ibara n'amategeko yaryo

1. a) 9 318
b) Ibihumbi birindwi magana atanu na mirongo ine na gatandatu
c) 5 743
d) Ibihumbi bitandatu magana kenda na mirongo irindwi n'umunani

2

h	j	c	b
5	4	7	8
7	2	3	1
9	7	6	8

3. a) 7 658 b) 9 067 c) 6 934
4. a) $7\ 865 > 7\ 685$ b) $9\ 456 < 9\ 546$ c) $8\ 798 = 8\ 798$
d) $5\ 798 < 5\ 987$
5. a) 5 678, 5 687, 5 768, 5 786 b) 8 769, 8 796, 8 967, 8 976,
6. a) 6 453, 6 435, 6 354, 6 345 b) 9 675, 9 657, 9 576, 9 567
7. a) $5\ 785 + 2\ 957 = 8\ 742$ c) $3\ 987 + 5\ 765 = 9\ 752$
b) $4\ 678 + 5\ 099 = 9\ 777$
8. a) $9\ 123 - 7\ 987 = 1\ 136$ b) $8\ 005 - 5\ 678 = 2\ 327$
9. a) $82 \times 65 = 5\ 330$ b) $154 \times 45 = 6\ 930$ c) $256 \times 38 = 9\ 728$
10. a) $7896 : 4 = 1974$ b) $8469 : 9 = 941$ c) $9891 : 7 = 1413$

$$\begin{array}{r}
 7896 \overline{) 4} \\
 - 4 \downarrow \\
 \hline
 38 \downarrow \\
 - 36 \downarrow \\
 \hline
 029 \downarrow \\
 - 28 \downarrow \\
 \hline
 016 \downarrow \\
 - 16 \downarrow \\
 \hline
 0
 \end{array}$$

$$\begin{array}{r}
 8469 \overline{) 9} \\
 - 81 \downarrow \\
 \hline
 036 \downarrow \\
 - 36 \downarrow \\
 \hline
 09 \downarrow \\
 - 9 \downarrow \\
 \hline
 0
 \end{array}$$

$$\begin{array}{r}
 9891 \overline{) 7} \\
 - 7 \downarrow \\
 \hline
 28 \downarrow \\
 - 28 \downarrow \\
 \hline
 009 \downarrow \\
 - 7 \downarrow \\
 \hline
 21 \downarrow \\
 - 21 \downarrow \\
 \hline
 0
 \end{array}$$

11. a) $4\,198 + 5\,678 = 9876$ e) $4567 + 3578 = 2159 + 5986$
 b) $8 \times 789 = 6312$ f) $6754 - 4629 = 7523 - 5398$
 c) $8567 - 5\,778 = 2789$ g) $564 \times 8 = 9 \times 448$
 d) $9785 : 1\,957 = 5$ h) $4375 : 5 = 7000 : 8$
12. a) Intera idahinduka ni $+105$ b) Intera idahinduka ni -95
13. a) 1543, 1474, 1405, 1336, 1267, 1198
 b) 2675, 2500, 2325, 2150, 1975, 1800

√	0	1	2	3	4	5	6	7	8	9	10
$\times 7$	0	7	14	21	28	35	42	49	56	63	70
√	0	1	2	3	4	5	6	7	8	9	10
$\times 8$	0	8	16	24	32	40	48	56	64	72	80
√	0	1	2	3	4	5	6	7	8	9	10
$\times 9$	0	9	18	27	36	45	54	63	72	81	90

15. Amahurizo
- a) Uzahabwa inzitiramibu $9\,875 : 5 = 1\,975$
 b) Akagari ka Bibare gatuwe n'abantu: $1\,368 + 1\,579 + 6\,487 = 9\,434$.
 c) Izitaramenze ni $8\,764 - 7\,985 = 779$
 d) Hajyamo abantu : $1\,009 \times 9 = 9\,081$

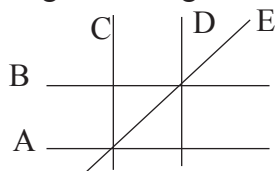
B Ingero

1. a) metero (m) b) kirogarama (kg) c) litiro (l)
2. a) $kg\,5\,g\,80 = dag\,508$ b) $l\,8\,dl\,30 = dl\,83$ c) $m\,5\,cm\,9 = mm\,5\,090$
3. a) $cl\,225 \times 8 = l\,18$ h) $hm\,75 + dam\,2250 = km\,3$
 b) $km\,8\,dam\,50 \times 6 = hm\,510$ i) $hg\,59\,g\,8 + dag\,286 = g\,8\,760$
 c) $dag\,578 \times 5 = hg\,289$ j) $hm\,9\,m\,8 - dam\,49\,m\,9 = m\,409$
 d) $cl\,7200 : 9 = l\,80$ k) $dl\,68 - ml\,3800 = l\,3$
 e) $km\,8\,m\,4 : 6 = m\,1334$ l) $kg\,6\,dag\,8 - g\,5678 = g\,402$
 f) $kg\,7\,dag\,7 : 7 = g\,1010$
 g) $dl\,80 + ml\,120 = l\,2$
4. a) $F\,9\,000 = F\,2\,000 + F\,5\,000 + F\,2\,000$
 b) $F\,5\,000 + F\,500 + F\,200 = F\,5\,700$
 c. Natanga $F\,1\,200 + F\,900 + F\,400 + F\,950 + F\,800 + F\,1\,500 = F\,5\,750$
 Nagarura $= F\,10\,000 - F\,5750 = F\,4250$
5. a) Saa kumi n'ebyiri zuzuye c) Saa tanu n'igice
 b) Saa tatu zibura iminota 15

6. a) Imyaka 4 ingana n'amezi 208 c) Iminsi 30 ingana n'amasaha 720
b) Ibyumweru 8 bingana n'iminsi 56 d) Iminsi 35 ingana n'ibyumweru 5
7. Umwaka ugira iminsi 365 uba ufite ukwezi kwa 2 gufite iminsi 28
Ugira iminsi 366 uba ufite ukwezi kwa 2 gufite iminsi 29.
8. Yatwaraga kg $2700 : 9 = \text{kg } 300$
9. Afite amazi angana na $5 \times 8 = 40$
- 10) Imyaka ikurikira izaba ifite iminsi ingahe ?
- a) 2018 : iminsi 365 d) 2024: iminsi 366
b) 2019 : iminsi 365 e) 2030: iminsi 365
c) 2020 : iminsi 366 f) 2028: iminsi 366

C. Amashushongero

1. Itegereze uvuge amazina y'imirongo iri ku ishusho :



- a) AB ni imirongo iteganye
b) CB ni imirongo iteganye
c) DE ni imirongo inyuranamo ikora imfuruka zagutse n'izifunganye
d) AE ni imirongo inyuranamo ikora imfuruka zagutse n'izifunganye
e) BE ni imirongo inyuranamo ikora imfuruka zagutse n'izifunganye
f) AD ni imirongo inyuranamo ikora imfuruka zigororotse
g) BD ni imirongo inyuranamo ikora imfuruka zigororotse
h) CD ni imirongo iteganye
2. Uzuza izi mbonerahamwe:

A. Kare

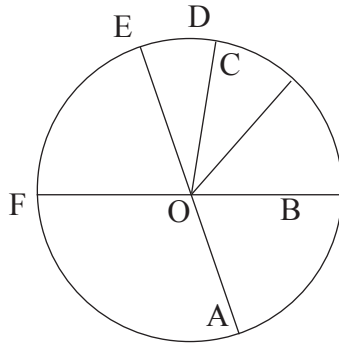
Uruhande	Umuzenguruko
cm 45	cm 180
cm 80	cm 240
cm 105	cm 420
cm 210	cm 840
cm 78	cm 312
cm 240	cm 960
cm 154	cm 616

B. Urukiramende

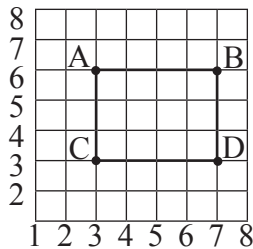
Uburebure	Ubugari	Umuzenguruko
cm 75	cm 54	cm 258
cm 23	cm 17	cm 80
cm 56	cm 43	cm 198
cm 87	cm 67	cm 308
cm 93	cm 79	cm 344
cm 36	cm 25	cm 122
cm 69	cm 47	cm 232

3. a) Mpandeshatu nyanguni c) Mpandeshatu ndinganire
b) Mpandeshatu ibonetse yose d) Mpandeshatu nyampanga

4.



- a) A E ni umurambararo f) OA ni akarambararo
b) OB ni akarambararo g) OF ni akarambararo
c) F B ni umurambararo h) OE ni akarambararo
d) OC ni akarambararo
e) OD ni akarambararo
5. Umuzenguruko ni $\text{cm } 45 \times 4 = \text{cm } 180$
6. Umuzenguruko ni $(\text{cm } 89 + \text{cm } 121) \times 2 = \text{cm } 420$
7. Umuzenguruko ni $\text{cm } 18 \times 3 = \text{cm } 54$
8. a) Umuzenguruko ni $\text{cm } 39 \times 4 = \text{cm } 156$
b) Umuzenguruko ni $(\text{cm } 48 + \text{cm } 18) \times 2 = \text{cm } 132$
c) Umuzenguruko ni $\text{cm } 86 + \text{cm } 86 + \text{cm } 110 = \text{cm } 282$
9. a) AC ni ubugari e) A E ni ni impuzampembe
b) CG ni impuzampembe f) HD ni ingwagati
c) AG ni uburebure g) GE ni ubugari
d) BF ni ingwagati h) CE ni uburebure
10. a) b) Urukiramende
c) Imfuruka zose zipima dogere 90 imwimwe



11. Ibisubizo biratandukanye bitewe n'imfuruka buri wese azashushanya.

a)
$$\begin{array}{r} \text{Dogere} \\ \underline{60} \end{array}$$

b)
$$\begin{array}{r} \text{Dogere} \\ \underline{135} \end{array}$$

12. Ibisubizo biratandukanye bitewe n'igishushanyo buri munyeshuri azashushanya.

10					
9					
8					
7					
6					
5					
4					
3					
2					
1					

16. Ibitabo byifashishijwe

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