

Imibare

Igitabo cy'Umunyeshuri

Umwaka wa

3

w'Amashuri Abanza

Icapwa rya 2019

Uburenganzira bw'umuhanzi

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Guteza Imbere Uburezi mu Rwanda (REB).

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Imibare kuva kuri 0 kugera ku 2 000



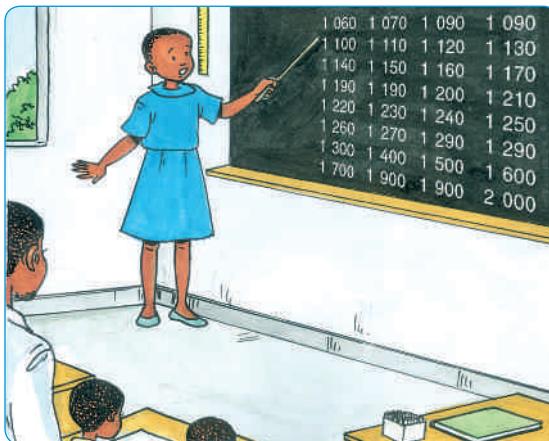
Mugarura yahinze amashu menshi ariko iyo yeze ntajya amenya ayo yasaruye n'asigaye mu murima. Ubwo akeneye kumenya iki mu mibare kugira ngo ashobore gucunga neza umusaruro we?



1.1 Gusoma imibare kuva kuri 0 kugera ku 2 000

Igikorwa cya 1

Mwitegerezze ishusho maze mwigane ibiri gukorwa.



Igikorwa cya 2

Mufate amakarita yanditseho iyi mibare:

1	2	3	4	5	6	7	8	9	0
---	---	---	---	---	---	---	---	---	---

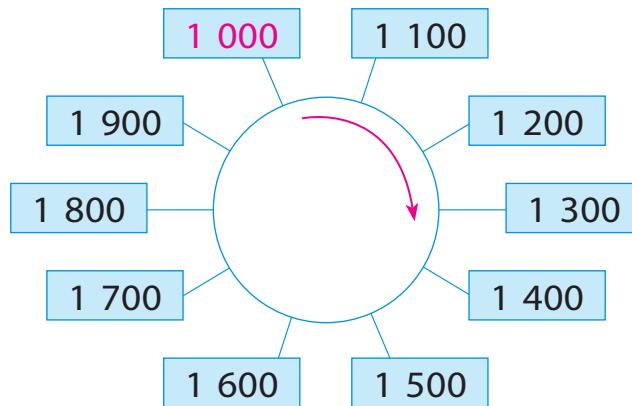
Mukore imibare itandukanye iri hagati ya:

- | | |
|-------------------|-------------------|
| 1) 1 000 na 1 030 | 3) 1 060 na 1 070 |
| 2) 1 040 na 1 050 | 4) 1 080 na 1 090 |

Buri mubarwa ukora inshuro imwe.

Igikorwa cya 3

Musome imibare muhereye ku muto mujya ku munini



Reka nisuzume



Koresha amakarita y'imibare wahawe ukore imibare 3 iri hagati ya 1 000 na 2 000. Nurangiza uyisomere bagenzi bawe.

1	2	3	4
6	5	1	7
8	1	9	0



Nsuzuma ngusuzume

Mu gakarito karimo udupapuro twanditseho imibare 1234; 1908; 1567; 1324; 1110. Buri wese atombore agapapuro kamwe asome aranguruye ijwi umubare wanditseho.

1.2 Kwandika imibare ku kura kuri 0 kugera ku 2 000

Igikorwa

Mukoreshe aya makarita y'imibare.

Mukore imibare 4 iri hagati ya 1 000 na 2 000

Muyandike mu magambo hanyuma muyisomere bagenzi banyu. Buri mubarwa ukoreshwe inshuro imwe mu mubare.

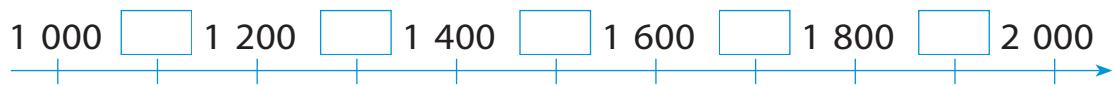
9	4	7	1
6	1	8	7
8	9	1	2
9	1	5	7

Umwitoto

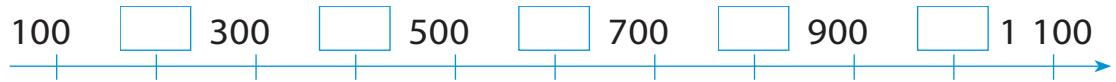


Shaka imibare ibura kuri uyu murongo w'ibara, uyisome unayandike mu magambo.

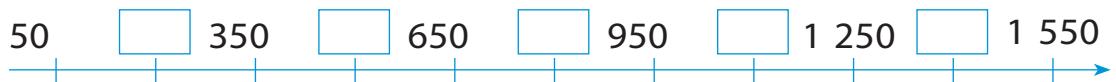
a)



b)



c)



Reka nisuzume



Shaka imibare iri hagati ya:

- | | |
|-------------------|-------------------|
| a) 1 990 na 2 000 | c) 1 590 na 1 600 |
| b) 1 240 na 1 250 | d) 1 920 na 1 930 |

Uyandike mu mibare no mu magambo



Nsuzuma ngusuzume



Mukoresheje amakarita y'imibare:

1	7	3	9	0	6	4	5
---	---	---	---	---	---	---	---

Nimukore imibare 4 iri hagati ya 1 000 na 2 000. Nimurangiza muyandike mu magambo hanyuma muyisomere bagenzi banyu.

Itegeko: Buri mubarwa ukora inshuro imwe mu mubare

Imyitoto



- 1) Andika mu mibare cyangwa mu magambo

- a) 1 924
- b) Igihumbi magana atatu na cumi n'ikenda:
- c) Igihumbi magana inani mirongo irindwi na kane:
- d) 1 499

2) Koresha amakarita y'imibare akurikira

9 8 1 5

ukore imibare 6 iri hagati ya 1 000 na 2 000 uysome,
uyandike mu ikayi yawe y'imyitozo, mu mibare no mu
magambo.

3) Soma imibare iri mu mbonerahamwe ikurikira:

- lyanditse mu magambo uyandike mu mibare
- lyanditse mu mibare uyandike mu magambo

a	1 674: __	d	Ibihumbi bibiri: __
b	Ighumbi magana kenda na gatanu: __	e	1 719: __
c	1 395: __	f	Ighumbi magana atatu na mirongo ine na karindwi: __

1.3 Gusesengura imibare kuva kuri 0 kugera ku 2 000

Igikorwa cya 1

Itegereze imbonerahamwe ikurikira, usobanure ibyakozwe.

Ibinyagihumbi (h)	Ibinyajana (j)	Ibinyacumi (c)	Ibinyabumwe (b)
1	4	5	6

Umubare 1 456 ugizwe n'ikinyagihumbi __ ibinyajana __,
ibinyacumi __ n'ibinyabumwe __

Igikorwa cya 2

Mwandike imibare ikurikira mu mbonerahamwe mukurikiza
urugero rw'ibyakozwe mu gikorwa cya 1. Mugaragaze
ibinyagihumbi, ibinyacumi, n'ibinyabumwe.

- | | | |
|----------|----------|----------|
| a) 1 456 | c) 1 699 | e) 1 953 |
| b) 1 239 | d) 1 479 | f) 1 974 |



Reka nisuzume



Itegereze ibinyagihumbi (h), ibinyajana(j), ibinyacumi (c) n'ibinyabumwe(b) maze wandike umubare wasesenguwe.

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

Imyitozo



Koresha imbonerahamwe y'ibara ushyire umubare mu mwanya waho.

- | | |
|----------------------------|----------------------------|
| a) 1 456 = h _ j _ c _ b _ | d) 1 239 = b _ j _ c _ h _ |
| b) 1 996 = c _ h _ b _ j _ | e) 1 197 = c _ j _ h _ b _ |
| c) 1 759 = j _ b _ h _ c _ | f) 1 597 = j _ b _ h _ c _ |

Nsobanukiwe ko:

- Agaciro k'ibinyagihumbi (h) ari umubare wabyo gukuba na 1 000
- Agaciro k'ibinyajana (j) ari umubare wabyo gukuba na 100
- Agaciro k'ibinyacumi (c) ari umubare wabyo gukuba na 10
- Agaciro k'ibinyabumwe (b) ari umubare wabyo gukuba na 1

Igikorwa cya 3

- a) Itegereze usobanure ibyakozwe

$$1\ 675 = 1\ 000 + 600 + 70 + 5$$

$$1\ 675 = (1 \times 1\ 000) + (6 \times 100) + (7 \times 10) + (1 \times 5)$$

$$1\ 675 = \text{Ikinyagihumbi } \underline{\quad}, \text{ Ibinyajana } \underline{\quad}, \text{ Ibinyacumi } \underline{\quad}, \\ \text{ Ibinyabumwe } \underline{\quad}$$

- b) Kora nk'ibyakozwe hejuru muri a)

$$1\ 874$$

Igikorwa cya 4

Musesengure imibare ikurikira mo ibinyagihumbi (h), ibinyajana (j), ibinyacumi (c) n'ibinyabumwe (b) musobanure uburyo byakozwemo.

- a) $1\ 265 =$ c) $1\ 645 =$ e) $1\ 997 =$
b) $1\ 799 =$ d) $1\ 436 =$ f) $1\ 956 =$



Nsuzuma ngusuzume

Mutahure kandi mwandike imibare yasesenguwe

- a) $(1 \times 1\ 000) + (9 \times 100) + (4 \times 10) + (5 \times 1) =$
b) $1\ 000 + 900 + 50 + 9$ bingana _____
c) Ikinyagihumbi 1 + Ibinyajana 9 + Ibinyacumi 7 +
Ibinyabumwe 3 bingana _____

Imyitozo

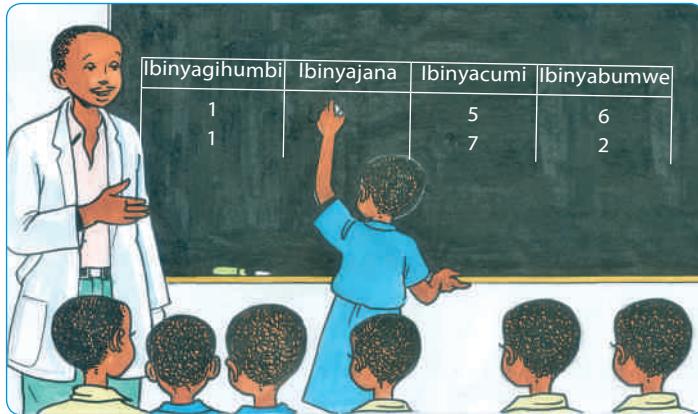


- 1) Koresha imbonerahamwe y'ibara, uvuge umwanya n'agaciro k'imibarwa iciyeho akarongo.
a) 1 456 c) 1 324 e) 1 179
b) 1 795 d) 1 299 f) 1 975
- 2) Shaka umubare wasesenguwemo ibinyagihumbi (h), ibinyajana (j), ibinyacumi (c) n'ibinyabumwe (b).
a) $b\ 6\ h\ 1\ c\ 9\ j\ 9 =$ c) $c\ 9\ h\ 1\ b\ 9\ j\ 7 =$
b) $b\ 7\ c\ 9\ h\ 1\ j\ 9 =$ d) $j\ 5\ b\ 4\ c\ 8\ h\ 1 =$
- 3) Sesengura imibare ikurikira mo ibinyagihumbi (h), ibinyajana (j), ibinyacumi (c) n'ibinyabumwe (b).
a) $1\ 765 =$ c) $1\ 956 =$ e) $1\ 564 =$
b) $1\ 672 =$ d) $1\ 254 =$ f) $1\ 713 =$
- 4) Shaka umubare wasesenguwe
a) $(1 \times 1\ 000) + (2 \times 100) + (3 \times 10) + (4 \times 1) =$
b) $1\ 000 + 300 + 70 + 1 =$
c) $h\ 1 + j\ 7 + c\ 9 + b\ 6 =$

1.4 Kugreranya imibare 2 itarenze 2 000

Igikorwa cya 1

Itegereze iyi shusho, uvuge ibiri gukorwa.



Urugero: 1 872 Uruta 1 356 bikandikwa gutya: $1\ 862 > 1\ 346$

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
1	3	5	6
1	8	7	2

Igikorwa cya 2

Mukurikize urugero mwahawe mugereranye imibare ikurikira mukoresha $<$, $>$ na =

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

Igikorwa cya 3

Mukurikize urugero mwahawe mugereranye imibare ikurikira mukoresha $<$, $>$ na =

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

Nsobanukiwe ko:

Iyo ugereranya imibare ibiri wita kuri ibi bikurikira:

1. Uhera ku binyagihumbi ujya ku binyabumwe ukagenda ugereranya buri mubarwa
2. Iyo ibinyagihumbi bingana uhita ugereranya ibinyajana
3. Iyo ibinyajana bingana uhita ugereranya ibinyacumi
4. Iyo ibinyacumi bingana ugereranya ibinyabumwe
5. Ibyo byose iyo birangiye wamenye umubare munini n'umuto cyangwa wabonye ko imibare ingana ukoresha ibimenyetso by'igereranya ari byo:
< (Birutwa), > (Biruta) na = (Bihwanye)

Ikitonderwa:

Ibimenyetso by'igereranya bya < na > bigomba kuba bireba buri gihe ahari umubare munini.

Igikorwa cya 4

Mukoreshe amakarita ariho imibare mugereranye imibare mushyiramo ikimenyetso k'igereranya gikwiye.

Urugero:

1 674

>

1 235

a) 1 311

1 515

c) 1 140

1 834

b) 1 180

1 798

d) 1 084

1 084



Reka nisuzume



Gereranya abantu babarurirwa mu kagari kacu bari muri iyi mbonerahamwe.

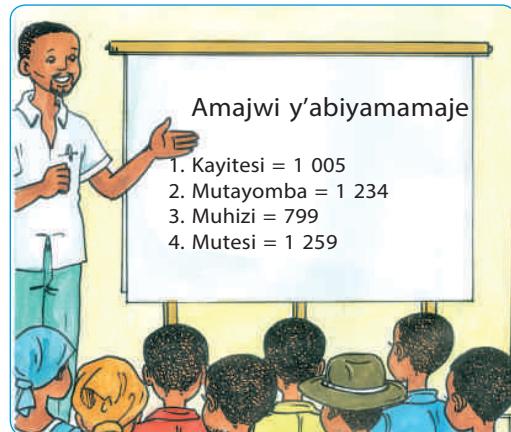
Abagabo	Abagore	Urubyiruko	Abana
1 395	1 421	1 432	1 999

- a) Umubare w'abagore n'uwan'abagabo
- b) Umubare w'abana n'uwan'abagabo
- c) Umubare w'abagore n'uwan'abana
- d) Umubare w'abagabo n'uwan'urubyiruko

- e) Umubare w'abagore n'uwb'urubyiruko
f) Umubare w'abana n'uwb'urubyiruko

Igikorwa cya 5

Mwitegerezze iyi shusho
maze mugereranye
amajwi y'abana
batorewe guhagararira
abandi mu Kagari.



- a) Muhizi afite amajwi _____
b) Mutesi afite amajwi _____
c) Kayitesi afite amajwi _____
d) Mutayomba afite amajwi _____
e) Muri aba bakandida ni nde ufite amajwi make?
f) Muri aba bakandida ni nde ufite amajwi menshi?
g) Gereranya amajwi y'abakandida ukoresheje <, > na =
– Kayitesi na Mutayomba
– Kayitesi na Muhizi
– Kayitesi na Mutesi
– Mutayomba na Muhizi
– Mutayomba na Mutesi
– Muhizi na Mutesi

Imyitozo



Mukoreshe <, > na = mugereranye imibare ikurikira:

- | | |
|-------------------------------------|-------------------------------------|
| a) 1 905 <input type="text"/> 1 905 | d) 1 532 <input type="text"/> 1 325 |
| b) 1 714 <input type="text"/> 1 797 | e) 1 647 <input type="text"/> 1 647 |
| c) 1 926 <input type="text"/> 1 673 | f) 1 351 <input type="text"/> 1 513 |

1.5 Gutondeka imibare kuva kuri 0 kugera ku 2 000

A. Gutondeka imibare kuva ku muto ujya ku munini

Igikorwa

Kurikiza urugero utondeke imibare yo kuri (a) na (b) uva ku muto ujya ku munini.

Urugero: Tondeka imibare uhoreye ku muto ujya ku munini,
1 649, 1 836, 1 598, 1 752

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
1	6	4	9
1	8	3	6
1	5	9	8
1	7	5	2

Igisubizo: 1 598, 1 649, 1 752, 1 836

a) 1 953, 1 395, 1 593

b) 1 613, 1 136, 1 479



Reka nisuzume



Ifashishe impapuro, wandike imibare 10, iri hagati ya 1 000 na 2 000 uyitondeke uva ku muto ujya ku munini.



Nsuzuma ngusuzume

Mukoreshe amakarita mwigane ibiri gukorwa ku ishusho mutondeke imibare iriho muhereye ku muto mujya ku munini

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

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



B. Gutondeka imibare uva ku mubare munini ujya ku mubare muto

Igikorwa

Mukurikize urugero mwahawe maze mutondeke imibare yo muri
(a) n'iyo muri (b) muva ku munini mujya ku muto.

Urugero: Tondeka iyi mibare uva ku munini ujya ku muto
1 987, 1 897, 1 789

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
1	9	8	7
1	8	9	7
1	7	8	9

Igisubizo: 1 987, 1 897, 1 789

- a) 1 048, 1 840, 1 084 b) 1 613, 1 136, 1 479



Reka nisuzume



Tondeka imibare iri ku makarita uva ku munini ujya ku muto

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



Nsuzuma ngusuzume

Mwifashishe impapuro, mwandike imibare 10, iri hagati ya 1 000 na 2 000 muyitondeke muva ku munini mujya ku muto.

Nsobanukiwe ko:

Iyo utondeka imibare ukoresha imbonerahamwe y'ibara:

- Ukabanza kugereranya ibinyagihumbi ureba uko birutana
- Ibinyajana na byo ukareba uko birutana
- Ibinyacumi na byo ukareba uko birutana
- Ibinyabumwe na byo ukareba uko birutana
- Ugatondeka ukurikije uko wabisabwe.

1.6 Guteranya imibare igiteranyo cyayo kitarenze 2 000

- A. Iteranya ritabitsa ry'imibare ibiri igiteranyo cyayo
kitarenze 2 000

Igikorwa

Musubize ibibazo bikurikira mukurikije urugero mwahawwe

Urugero: $1\ 324 + 675 =$

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

$$1\ 324 + 675 = 1\ 999$$

- a) $1\ 156 + 823 =$ d) $972 + 1\ 017 =$
b) $1\ 543 + 456 =$ e) $675 + 1\ 323 =$
c) $1\ 235 + 704 =$ f) $794 + 1\ 002 =$



Nsuzuma ngusuzume

Mwifashishe amakarita yanditseho imibare n'andi ariho
ibimenyetso byo $+$ na $=$

- A) 1 124 1 005 1 234 1 252 1 542 1 321 1 213
B) 471 982 625 717 437 678 785
C) 1 998 1 859 1 999 1 595 1 979 1 987 1 969

- Mufate ikarita imwe muri A
- Mukurizeho ikarita yanditseho ikimenyetso cyo $+$
- Mukurizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Mukurizeho ikarita yanditseho ikimenyetso cya $=$
- Muhitemo igisubizo mu makarita yo muri C

Nsobanukiwe ko:

Iyo uteranya imibare ibiri ukora ibi bikurikira:

1. Wifashisha imbonerahamwe y'ibara
2. Umubare munini ukajya hejuru, umuto ukajya hasi.
3. Uteranya uhereye ku binyabumwe ugaherukira ku binyagihumbi.
4. Ukandukura igiteranyo



Reka nisuzume



Muteranye imibare ikurikira:

- | | |
|---------------------|---------------------|
| a) $1\ 234 + 763 =$ | d) $1\ 099 + 900 =$ |
| b) $567 + 134 =$ | e) $765 + 1\ 213 =$ |
| c) $990 + 1\ 009 =$ | f) $1\ 002 + 691 =$ |

Imyitozo



- | | | | | |
|---------------------|---------------------|---------------------|---------------------|---------------------|
| a) $1\ 256$ | b) $1\ 523$ | c) $1\ 435$ | d) $1\ 124$ | e) $1\ 340$ |
| $\underline{+ 421}$ | $\underline{+ 376}$ | $\underline{+ 543}$ | $\underline{+ 872}$ | $\underline{+ 549}$ |

B. Iteranya ribitsa ry'imibare igiteranyo cyayo kitarenze 2 000

Igikorwa

Musubize ibibazo bikurikira mukurikije urugero mwahawwe:

Urugero: $1\ 425 + 575 = 2\ 000$

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
1	1	1	5
1	4	2	5
$+ \quad$	5	7	
2	0	0	0

- | | |
|------------------|---------------------|
| a) $934 + 799 =$ | c) $999 + 1\ 001 =$ |
| b) $967 + 999 =$ | d) $1\ 099 + 897 =$ |



Nsuzuma ngusuzume

Mwifashishe amakarita yanditseho imibare n'andi ariho
ibimenyetso byo $+$ na $=$

- A) 924 905 834 952 642 721 813
B) 897 997 789 879 858 999 979
C) 1 623 1 831 1 902 1 821 1 500 1 720 1 792

- Mufate ikarita imwe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cyo $+$
- Mukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cya $=$
- Muhitemo igisubizo mu makarita yo muri C

Nsobanukiwe ko:

Iyo uteranya imibare ibiri:

1. Wifashisha imbonerahamwe y'ibara
2. Uteranya uhereye ku binyabumwe ugana ku binyagihumbi.
3. Umubare munini ujya hejuru, umuto ukajya hasi.
4. Iyo igiteranyo k'ibinyabumwe kigizwe n'imibarwa ibiri, wandika ikinyabumwe k'icyo giteranyo, ukabitsa ikinyacumi hejuru y'ibinyacumi, ukabiteranya, ugakomeza utyo kugera ku binyagihumbi.
5. Ukandukura igiteranyo.



Reka nisuzume



Teranya imibare ikurikira:

- a) 1 056 + 899 = d) 972 + 969 =
b) 797 + 1 197 = e) 675 + 979 =
c) 1 235 + 757 = f) 1 239 + 476 =

Imyitozo



a) 1 197	b) 1 093	c) 1 395	d) 1 541	e) 1 154
<u>+ 654</u>	<u>+ 379</u>	<u>+ 499</u>	<u>+ 379</u>	<u>+ 779</u>

1.7 Amahurizo yo guteranya imibare igiteranyo cyayo kitarenze 2 000

Urugero:

Umwaka ushize Muhizi yasaruye inanasi 799, uyu mwaka asarura 967. Shaka igiteranyo k'inanasi yasaruye mu myaka ibiri.

Ibyo mfite mu ihurizo	Ibyo mbazwa	Inzira n'igisubizo
Inanasi Muhizi yasaruye umwaka ushize= 799	Igiteranyo k'inanasi zose zasaruwe mu myaka ibiri =?	Inanasi zasaruwe mu myaka ibiri: $799 + 967 = 1\ 766$
Inanasi Muhizi yasaruye uyu mwaka = 799		$ \begin{array}{r} 11 \\ 967 \\ + 799 \\ \hline 1\ 766 \end{array} $



Nsuzuma ngusuzume

- 1) Mu Mujyi wa Kigali hubatse amagorofa 754 n'andi mazu y'ikitegererezo 969. Shaka umubare w'amazu yose yubatswe mu Mujyi wa Kigali?
- 2) Mu isoko hacururizamo abagore 1 006 n'abagabo 979. Shaka umubare w'abacuruzi bose hamwe.
- 3) Ishuri ryigamo abakobwa 997 n'abahungu 967. Shaka umubare w'abanyeshuri biga muri iryo shuri.
- 4) Mu bitaro byivurizamo abarwayi batandukanye, mu kwezi kumwe haje abagore 799, abana 356 n'abagabo 795. Shaka umubare w'abivurije muri ibyo bitaro bose hamwe.



Reka nisuzume



- 1) Mu nzu y'imyidagaduro hari abagore 976 n'abagabo 779. Muri iyo nzu harimo abantu bangahe?
- 2) Akagari kacu gatuwemo n'abagore 357, abana 656, abagabo 337 n'urubyiruko 731. Akagari kacu gatuwe n'abaturage bangahe?
- 3) Muri banki habikuza abantu batandukanye. Mu cyumweru kimwe habikuje abagore 969, abagabo 656 n'urubyiruko 245. Shaka umubare w'babikuje muri icyo cyumweru.
- 4) Mu murenge wa Kicukiro harimo amazu y'ikitegererezo 675, amagorofa 199 n'amazu aciriritse 992. Muri uwo murenge harimo amazu angahe?

1.8 Gukuramo imibare itarenze 2 000

A. Ikuramo ridatira ry'imibare itarenze 2 000

Igikorwa cya 1

Itegereze urugero usobanure ibyakozwe

Urugero: $1\ 999 - 1\ 675 = 324$

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
1	9	9	9
- 1	6	7	5
0	3	2	4

Igikorwa cya 2

Musubize ibibazo bikurikira mukurikije urugero mwahawwe

a) $1\ 956 - 1\ 421 =$	c) $1\ 975$ d) $1\ 694$	e) $1\ 799$
b) $1\ 599 - 1\ 376 =$	$\underline{-1\ 543}$	$\underline{-1\ 372}$
		$\underline{\underline{-1\ 249}}$



Nsuzuma ngusuzume

Mwifashishe amakarita yanditseho imibare n'andi ariho
ibimenyetso byo $-$ na $=$

- | | | | | | | | |
|----|-------|-------|-------|-------|-------|-------|-------|
| A) | 1 698 | 1 875 | 1 579 | 1 958 | 1 385 | 1 296 | 1 473 |
| B) | 1 416 | 1 352 | 1 156 | 1 327 | 1 274 | 276 | 1061 |
| C) | 412 | 631 | 282 | 111 | 1020 | 523 | 423 |

- Mufate ikarita imwe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cya $-$
- Mukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cya $=$
- Muhitemo igisubizo mu makarita yo muri C

Nsobanukiwe ko:

Iyo ukuramo imibare ukora ibi bikurikira:

1. Wifashisha imbonerahamwe y'ibara
2. Wandika imibare mu mbonerahamwe y'ibara uhoreye ku munini.
3. Uhera ku binyabumwe ukuramo ugaheruka ibinyagihumbi.
4. Wandukura ikinyuranyo ubonye.



Reka nisuzume



Kuramo imibare ikurikira:

- | | |
|--------------------|--------------------|
| a) 1 995 – 763 = | d) 1 999 – 979 = |
| b) 1 567 – 1 341 = | e) 1 765 – 1 213 = |
| c) 1 990 – 1 090 = | f) 1 956 – 923 = |

Imyitozo



- | | | | | |
|--------------|--------------|----------------|----------------|--------------|
| a) 1 543 | b) 1 835 | c) 1 972 | d) 1 675 | e) 1 979 |
| <u>– 421</u> | <u>– 704</u> | <u>– 1 070</u> | <u>– 1 323</u> | <u>– 863</u> |

B. Ikuramo ritira ry'imibare itarenze 2 000

Igikorwa

Musubize ibibazo bikurikira mukurikije urugero mwahawwe

Urugero: $1\ 282 - 967 = 315$

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
0 1 — 0	12 2 9 3	7 8 6 1	12 2 7 5

- a) $1\ 243$ b) $1\ 613$ c) $1\ 345$ d) $1\ 524$ e) $1\ 241$
 $\underline{- 979}$ $\underline{- 1\ 379}$ $\underline{- 769}$ $\underline{- 699}$ $\underline{- 979}$



Nsuzuma ngusuzume

Mwifashishe amakarita yanditseho imibare n'andi ariho
ibimenyetso byo $-$ na $=$

- A) 1 124 1 005 1 234 1 326 1 421 2 000 1 300
B) 1 099 987 978 879 786 1 979 1 299
C) 1 25 256 447 21 18 635

- Mufate ikarita imwe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cyo $-$
- Mukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cya $=$
- Muhitemo igisubizo mu makarita yo muri C

Nsobanukiwe ko:

Iyo ukuramo imibare isaba gutira ukora ibi bikurikira:

1. Wifashisha imbonerahamwe y'ibara.
2. Wandika umubare munini hejuru y'umubare muto mu mbonerahamwe y'ibara.
3. Ukuramo uhereye ku binyabumwe ugana ku binyagihumbi.
4. Iyo gukuramo ibinyabumwe bidashoboka, utira ikinyacumi kimwe ukongera ku binyabumwe umubare 10 ugakuramo.
5. Ukomeza utyo aho bidashoboka hose, kugeza ukuyemo ibinyagihumbi.



Reka nisuzume



Kuramo imibare ikurikira

a) 1 034 – 799 =	d) 1 345 – 997 =
b) 1 123 – 979 =	e) 1 456 – 1 299 =
c) 1 234 – 1 196 =	f) 1 789 – 1 236 =

Imyitozo

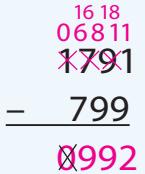


a) 1 567	b) 1 679	c) 1 799	d) 1 009	e) 1 234
<u>– 1 399</u>	<u>– 1 199</u>	<u>– 999</u>	<u>– 969</u>	<u>– 979</u>

1.9 Amahurizo yo gukuramo imibare itarenze 2 000

Urugero:

Mu kigo cyacu higa abanyeshuri 1 791. Niba abahungu ari 999, shaka umubare w'abakobwa biga mu kigo cyacu

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Umubare w'abanyeshuri bose 1 791	Umubare w'abakobwa	Umubare w'abakobwa: 1791 – 999 = 792 
Umubare w'abahungu 999		

Nsobanukiwe ko:

Iyo ugiye gukora ihurizo ririmo gukuramo imibare:

1. Ugaragaza ibyo baguhaye mu ihurizo.
2. Ugaragaza ibyo bagusaba mu ihurizo.
3. Wandika umubare munini wahawe mu ihurizo ukawuvanamo umubare muto, ukandika ikinyuranyo.



Nsuzuma ngusuzume

- 1) Kaneza yateye ibiti 1 917. Hashize iminsi hava izuba ryinshi 769 muri byo biruma. Yasigaranye ibiti bingahe?
- 2) Mutoni yari afite inka 1 231, inka 523 muri zo yazigabiye abavandimwe n'insuti. Yasigaranye inka zingahe?
- 3) Umurenge wacu utuwe n'abaturage 1 163. Niba abaturage 999 muri bo ari abagore n'abana, shaka umubare w'abagabo n'urubyiruko batuye mu murenge wacu.
- 4) Uruganda rukora imifuka rwakoze imifuka 1 721, imifuka 179 muri yo igurwa na Rukundo. Shaka umubare w'imifuka uruganda rwasigaranye.



Reka nisuzume

- 1) Ishuri ryacu ryahize kuzatera ibiti 2 000 uyu mwaka kugeza ubu tumaze gutera 1 099. Harabura ibiti bingahe ngo twese umuhigo?

- 2) Mu bitaro by'Akarere hari harwariye abarwayi 1 532 none hasezerewe abarwayi 799 bamaze gukira neza. Hasigayemo abarwayi bangahe?
- 3) Abanyamuryango ba koperative babumbye amatafari 1 911, amatafari 975 muri yo bayubakisha ikiraro k'inkoko. Shaka umubare w'amatafari yasigaye.
- 4) Mu kigo cyacu harimo abantu 1 921, muri bo 124 ni abakozi b'ikigo. Shaka umubare w'abanyeshuri biga muri iryo shuri.

Imyitozo



- 1) Itegerezze neza ibiri mu mbonerahamwe maze ukore ibyo wabajije

	1	2
A	1 234	1 623
B	396	245
C	695	309
D	319	299

Shaka igiteranyo k'imibare ikurikira:

- a) A 1 + B 1 =
- c) A 1 + D 1 =
- e) A 2 + C 2 =
- b) A 1 + C 1 =
- d) A 2 + B 2 =
- f) A 2 + D 2 =

Shaka ikinyuranyo k'imibare ikurikira:

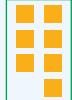
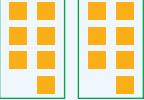
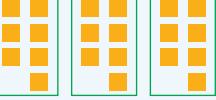
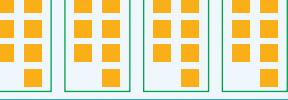
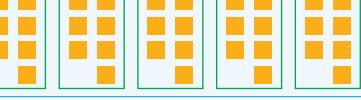
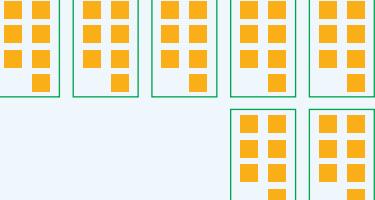
- a) A 1 - B 1 =
- c) A 1 - D 1 =
- e) A 2 - C 2 =
- b) A 1 - C 1 =
- d) A 2 - B 2 =
- f) A 2 - D 2 =

- 2) Mu kagari kacu harimo abantu 996 bemerewe gutora. Mu kagari duturanye, harimo abantu bemerewe gutora 999. Ubwo abantu bemerewe gutora muri utwo tugari twombi ni bangahe?
- 3) Mu ibarura riheruka, Akagari kacu kari gatuwe n'abantu 1 964 bose hamwe. Niba 1 324 muri bo ari abana, ubwo Akagari kacu kari gatuwe n'abantu bakuru bangahe?

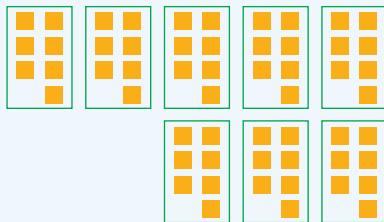
1.10 Mara ya 7 n'ibikubo bya 7 bitarenze 70

Igikorwa

- a) Mukore uturundo tw'utubarisho 7, 14, 21, 28, 35, 42, 49, 56, 63, 70.
- b) Mubare ibiri muri buri karundo maze mwandike inshuro uwo mubare ugaruka kuri buri murongo.
- c) Ese witegereje ibikurikira hari isano iri hagati yo guteranya no gukuba na 7?

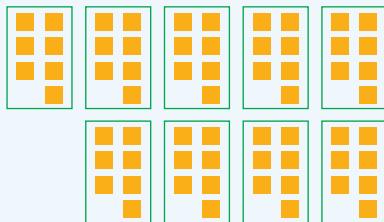
7		7×1
$7 + 7 = 14$		7×2
$7 + 7 + 7 = 21$		7×3
$7 + 7 + 7 + 7 = 28$		7×4
$7 + 7 + 7 + 7 + 7 = 35$		7×5
$7 + 7 + 7 + 7 + 7 + 7 = 42$		7×6
$7 + 7 + 7 + 7 + 7 + 7 + 7 = 49$		7×7

$$7 + 7 + 7 + 7 + 7 + 7 + 7 = 56$$



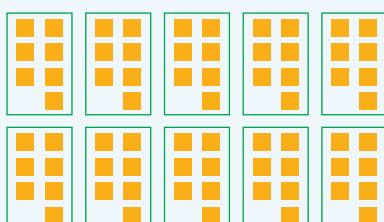
$$7 \times 8$$

$$7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 = 63$$



$$7 \times 9$$

$$\begin{aligned} 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 \\ = 70 \end{aligned}$$



$$7 \times 10$$

Imyitozo



1) Uzurisha imibare ikwiye

- a) $7 = 7 \times \square$
- e) $35 = 7 \times \square$
- h) $56 = 7 \times \square$
- b) $14 = 7 \times \square$
- f) $42 = 7 \times \square$
- i) $63 = 7 \times \square$
- c) $21 = 7 \times \square$
- g) $49 = 7 \times \square$
- j) $70 = 7 \times \square$
- d) $28 = 7 \times \square$

2) Shaka ibikubo bya 7

$$7 \text{ Inshuro 1} \rightarrow 7 \times 1 = \square \quad 7 \text{ Inshuro 6} \rightarrow 7 \times 6 = \square$$

$$7 \text{ Inshuro 2} \rightarrow 7 \times 2 = \square \quad 7 \text{ Inshuro 7} \rightarrow 7 \times 7 = \square$$

$$7 \text{ Inshuro 3} \rightarrow 7 \times 3 = \square \quad 7 \text{ Inshuro 8} \rightarrow 7 \times 8 = \square$$

$$7 \text{ Inshuro 4} \rightarrow 7 \times 4 = \square \quad 7 \text{ Inshuro 9} \rightarrow 7 \times 9 = \square$$

$$7 \text{ Inshuro 5} \rightarrow 7 \times 5 = \square \quad 7 \text{ Inshuro 10} \rightarrow 7 \times 10 = \square$$

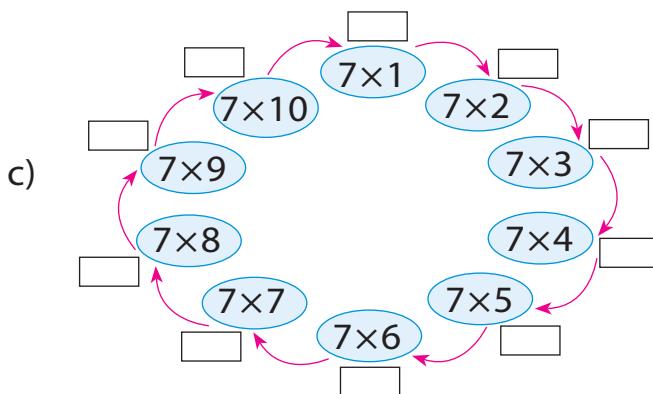
3) Uzurisha umubare ukwiye

a)

	1	2	3	4	5	6	7	9	9	10
$\times 7$	—	—	—	—	—	—	—	—	—	—

b)

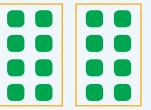
	—	2	—	4	—	6	—	9	—	10
$\times 7$	7	—	21	—	35	—	49	—	63	—

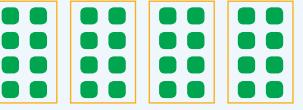
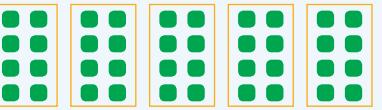
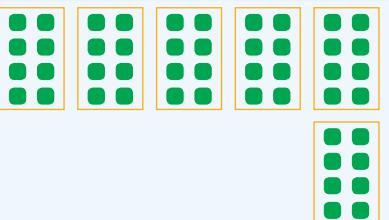
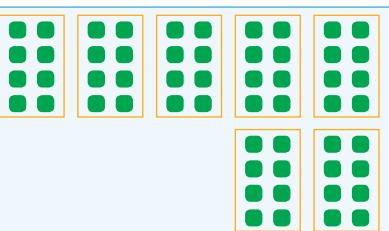
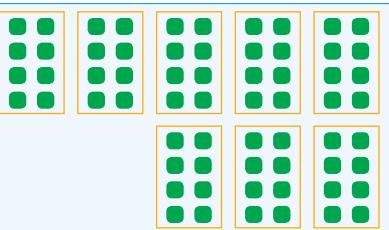
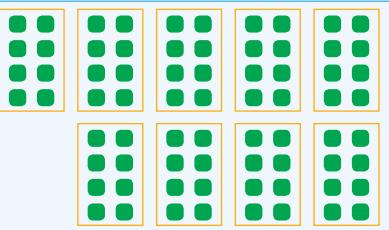
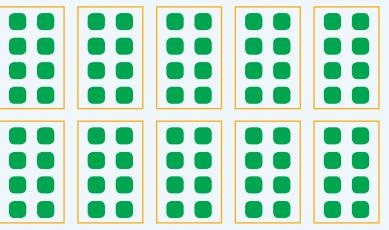


1.11 Mara ya 8 n'ibikubo bya 8 bitarenze 80

Igikorwa

- a) Mukore uturundo tw'utubarisho 8, 16, 24, 32, 40, 48, 56, 64, 72, 80.
- b) Mubare ibiri muri buri karundo maze mwandike inshuro uwo mubare ugaruka kuri buri murongo.
- c) Ese witegereje ibikurikira hari isano iri hagati yo guteranya no gukuba na 8?

8		8×1
$8 + 8 = 16$		8×2

$8 + 8 + 8 = 24$		8×3
$8 + 8 + 8 + 8 = 32$		8×4
$8 + 8 + 8 + 8 + 8 = 40$		8×5
$8 + 8 + 8 + 8 + 8 + 8 = 48$		8×6
$8 + 8 + 8 + 8 + 8 + 8 + 8 = 56$		8×7
$8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 = 64$		8×8
$8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 = 72$		8×9
$8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 + 8 = 80$		8×10

Imyitozo



1) Uzurisha imibare ikwiye

- a) $8 = 8 \times \square$ e) $40 = 8 \times \square$ h) $64 = 8 \times \square$
 b) $16 = 8 \times \square$ f) $48 = 8 \times \square$ i) $72 = 8 \times \square$
 c) $24 = 8 \times \square$ g) $56 = 8 \times \square$ j) $80 = 8 \times \square$
 d) $32 = 8 \times \square$

2) Shaka ibikubo bya 8

$$\begin{array}{ll} 8 \text{ Inshuro } 1 \rightarrow 8 \times 1 = & 8 \text{ Inshuro } 6 \rightarrow 8 \times 6 = \\ 8 \text{ Inshuro } 2 \rightarrow 8 \times 2 = & 8 \text{ Inshuro } 7 \rightarrow 8 \times 7 = \\ 8 \text{ Inshuro } 3 \rightarrow 8 \times 3 = & 8 \text{ Inshuro } 8 \rightarrow 8 \times 8 = \\ 8 \text{ Inshuro } 4 \rightarrow 8 \times 4 = & 8 \text{ Inshuro } 9 \rightarrow 8 \times 9 = \\ 8 \text{ Inshuro } 5 \rightarrow 8 \times 5 = & 8 \text{ Inshuro } 10 \rightarrow 8 \times 10 = \end{array}$$

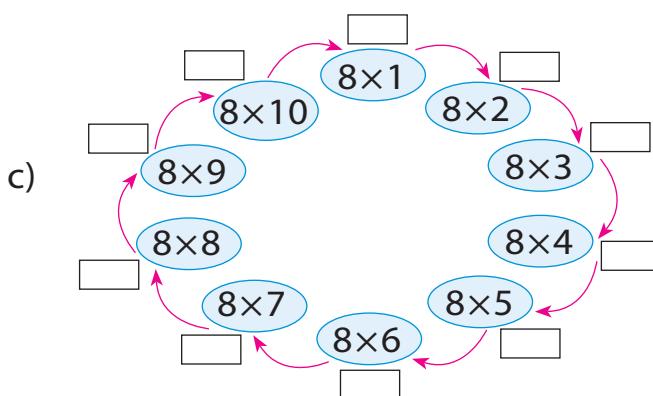
3) Uzurisha umubare ukwiye

a)

	0	1	2	3	4	5	6	7	9	9	10
$\times 8$	—	—	—	—	—	—	—	—	—	—	—

b)

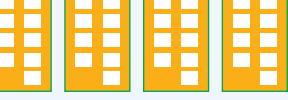
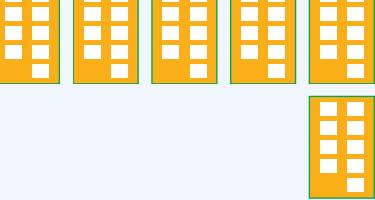
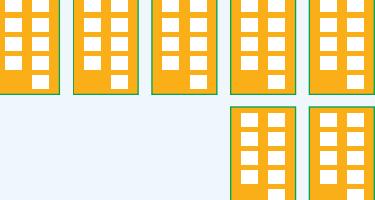
	0	—	2	—	4	—	6	—	9	—	10
$\times 8$	—	8	—	24	—	40	—	56	—	72	—



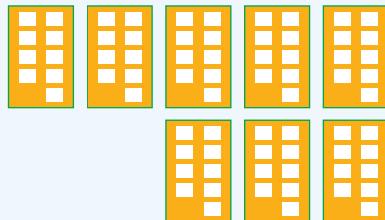
1.12 Mara ya 9 n'ibikubo bya 9 bitarenze 90

Igikorwa

- Mukore uturundo tw'utubarisho 9, 18 , 27, 36, 45, 54, 63, 72, 91, 90.
- Mubare ibiri muri buri karundo maze mwandike inshuro uwo mubare ugaruka kuri buri murongo.
- Ese witegereje, ibikurikira hari isano iri hagati yo guteranya no gukuba na 9?

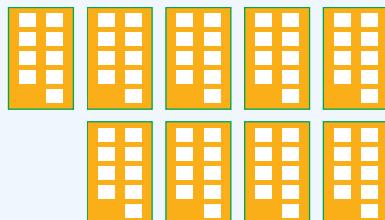
9		9×1
$9 + 9 = 18$		9×2
$9 + 9 + 9 = 27$		9×3
$9 + 9 + 9 + 9 = 36$		9×4
$9 + 9 + 9 + 9 + 9 = 45$		9×5
$9 + 9 + 9 + 9 + 9 + 9 = 54$		9×6
$9 + 9 + 9 + 9 + 9 + 9 + 9 = 63$		9×7

$$9 + 9 + 9 + 9 + 9 + 9 + 9 = 72$$



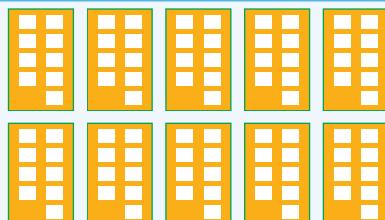
$$9 \times 8$$

$$\begin{aligned} 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 \\ = 81 \end{aligned}$$



$$9 \times 9$$

$$\begin{aligned} 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 + 9 \\ + 9 = 90 \end{aligned}$$



$$9 \times 10$$

Imyitozo



1) Uzurisha imibare ikwiye

- | | | |
|----------------------------|----------------------------|----------------------------|
| a) $9 = 9 \times \square$ | e) $45 = 9 \times \square$ | h) $72 = 9 \times \square$ |
| b) $18 = 9 \times \square$ | f) $54 = 9 \times \square$ | i) $81 = 9 \times \square$ |
| c) $27 = 9 \times \square$ | g) $63 = 9 \times \square$ | j) $90 = 9 \times \square$ |
| d) $36 = 9 \times \square$ | | |

2) Shaka ibikubo bya 9

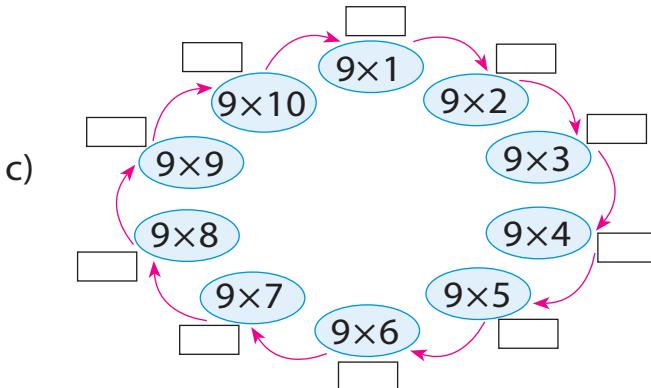
$9 \text{ Inshuro } 1 \rightarrow 9 \times 1 =$	$9 \text{ Inshuro } 6 \rightarrow 9 \times 6 =$
$9 \text{ Inshuro } 2 \rightarrow 9 \times 2 =$	$9 \text{ Inshuro } 7 \rightarrow 9 \times 7 =$
$9 \text{ Inshuro } 3 \rightarrow 9 \times 3 =$	$9 \text{ Inshuro } 8 \rightarrow 9 \times 8 =$
$9 \text{ Inshuro } 4 \rightarrow 9 \times 4 =$	$9 \text{ Inshuro } 9 \rightarrow 9 \times 9 =$
$9 \text{ Inshuro } 5 \rightarrow 9 \times 5 =$	$9 \text{ Inshuro } 10 \rightarrow 9 \times 10 =$

3) Uzurisha umubare ukwiye

a)		0	—	2	—	4	—	6	—	9	—	10
		$\times 9$	—	9	—	27	—	45	—	63	—	81

b)

	—	1	—	3	—	5	—	7	—	9	—
$\times 9$	0	—	18	—	36	—	54	—	72	—	90



1.13 Gukuba imibare y'imibarwa ibiri cyangwa itatu na 7, 8 na 9 igikubo cyayo kitarenze 2 000

Igikorwa

Musubize ibibazo bikurikira mukurikije urugero mwahawwe

Urugero: $237 \times 7 = 1\,659$

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
	2	4	
2	3	7	7

1	6	5	9
---	---	---	---

$7 \times 7 = 49$ Twandika 9 mu binyabumwe tukabitsa 4 mu binyacumi.

$7 \times 3 = 21$ Twandika 1 + 4 mu binyacumi tukabitsa 2 mu binyajana.

$7 \times 2 = 14$ Twandika 4 + 2 mu binyajana tukabitsa 1 mu binyagihumbi.

- a) 175 b) 189 c) 197 d) 186 e) 167
 $\underline{\times 7}$ $\underline{\times 8}$ $\underline{\times 9}$ $\underline{\times 7}$ $\underline{\times 8}$

$$\begin{array}{r} \text{f) } 169 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} \text{g) } 158 \\ \times 8 \\ \hline \end{array} \quad \begin{array}{r} \text{h) } 148 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} \text{i) } 179 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} \text{j) } 186 \\ \times 9 \\ \hline \end{array}$$

Nsobanukiwe ko:

Iyo ukuba imibare uhera ku binyabumwe. Iyo usanze igikubo kigizwe n'imibarwa ibiri wandika ikinyabumwe k'icyo gikubo hanyuma ukabitsa ikinyacumi mu binyacumi. Ukomeza utyo kugeza ku binyagihumbi.



Nsuzuma ngusuzume

Shaka umubare ubura

$$\begin{array}{r} \text{a) } 245 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} \text{b) } 215 \\ \times 8 \\ \hline \end{array} \quad \begin{array}{r} \text{c) } 200 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} \text{d) } 239 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} \text{e) } 189 \\ \times 8 \\ \hline \end{array}$$



Reka nisuzume



Igana urugero wahawe ushake ibikubo by'iyi mibare

Urugero:

$$248 \times 8 = \frac{1600}{(200 \times 8)} + \frac{320}{(40 \times 8)} + \frac{64}{(8 \times 8)} = 1984$$

$$\begin{array}{lll} \text{a) } 254 \times 7 = & \text{c) } 219 \times 9 = & \text{e) } 179 \times 8 = \\ \text{b) } 245 \times 8 = & \text{d) } 198 \times 7 = & \text{f) } 209 \times 9 = \end{array}$$

Imyitozo



$$\begin{array}{r} \text{a) } 274 \\ \times 5 \\ \hline \end{array} \quad \begin{array}{r} \text{b) } 612 \\ \times 3 \\ \hline \end{array} \quad \begin{array}{r} \text{c) } 176 \\ \times 8 \\ \hline \end{array} \quad \begin{array}{r} \text{d) } 199 \\ \times 9 \\ \hline \end{array} \quad \begin{array}{r} \text{e) } 129 \\ \times 6 \\ \hline \end{array}$$

1.14 Ikuba ry'umubare w'imibarwa 3 nundi w'imibarwa 2 igikubo cyayo kitarenze 2 000

Igikorwa

Musubize ibibazo bikurikira mukurikije urugero mwahawe.

Urugero:

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
	1 x	2 1	3 2
	2	4	6
+ 1	2	3	
1	4	7	6

a) 111×17 b) 105×19 c) 156×12 d) 179×11 e) 129×15



Reka nisuzume



a) 146×13 b) 162×12 c) 139×14 d) 152×13 e) 124×15



Nsuzuma ngusuzume

Mwifashishe amakarita yanditseho imibare n'andi ariho
ibimenyetso byo \times na $=$

- A) 114 115 109 103 102 117 112
- B) 14 13 12 11 15 16 17
- C) 1 904 1 530 1 495 1 596 1 872 1 133 1 308

- Mufate ikarita imwe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cyo \times
- Mukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cya $=$
- Muhitemo igisubizo mu makarita yo muri C

Nsobanukiwe ko:

Iyo ukuba umubare w'imibarwa 3 n'undi w'imibarwa 2:

1. Wandika imibare mu mbonerahamwe y'ibara
2. Ukubisha ikinyabumwe kugeza urangije imibarwa yose
3. Ukubisha ikinyacumi k'igikuba ukandika ikinyabumwe k'igikubo munsi y'inyacumi k'igikubo wabonye.
4. Uteranya ibikubo byose uhoreye ku binyabumwe ujya ku binyagihumbi.

Imyitozo



Itegerezze neza imbonerahamwe ushake igikubo wabajije

	1	2	3	4
A	116	113	111	110
B	19	18	17	16
C	15	14	13	12

a) $A \ 1 \times B \ 4 =$ c) $A \ 1 \times B \ 3 =$ e) $A \ 1 \times C \ 3 =$
b) $A \ 1 \times C \ 1 =$ d) $A \ 1 \times C \ 2 =$ f) $A \ 1 \times C \ 4 =$

1.15 Amahurizo yo gukuba umubare w'imibarwa 3 n'undi w'imibarwa 2 igikubo kitarenze 2 000

Urugero:

Mu cyumba k'inama harimo imirongo 19 y'intebe kandi kuri buri murongo hariho intebe 105. Shaka umubare w'intebe ziri mu cyumba k'inama.

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Umubare w'imirongo ni 19 Intebe ziri kuri buri murongo ni 105	Umubare w'intebe ziri muri icyo cyumba	Umubare w'intebe: $105 \times 19 =$ Intebe 1 995

Nsobanukiwe ko:

Iyo ugiye gukora ihurizo ririmo gukuba imibare:

1. Ugaragaza ibyo baguhaye mu ihurizo
2. Ugaragaza ibyo bakubaza mu ihurizo
3. Wandika imibare wahawe mu ihurizo mu buryo buhagaze maze ukayikuba hanyuma ukandika igikubo.



Nsuzuma ngusuzume

- 1) Data yatemye ibitoki abipakira imodoka 17 ziruzura. Shaka umubare w'ibitoki yatemye niba buri modoka yaratwaye ibitoki 117.
- 2) Ibitaro by'Akarere kacu bifite ibyumba by'abarwayi 19. Muri buri cyumba harimo abarwayi 105. Shaka umubare w'abarwayi bari muri ibyo bitaro.
- 3) Mu gasanduku k'itora hajyamo amajwi 148. Shaka umubare w'amajwi ajya mu dusanduku tw'itora 13.
- 4) Mubumbyi abumba amatafari 165 buri munsi. Shaka umubare w'amatafari abumba mu minsi 12.



Reka nisuzume



- 1) Abanyeshuri bateye ibiti ku mirongo. Buri murongo bawuteyeho ibiti 162 batera imirongo 12. Bateye ibiti bingahe muri rusange?
- 2) Butera yaguriye abana 135 bo mu Kagari amakayi. Buri mwana yamuguriye amakayi 14. Ubwo Butera yaguze amakayi angahe yose hamwe?
- 3) Umucuruzi acuruza isabune 124 buri munsi. Shaka umubare w'isabune acuruza mu minsi 16.
- 4) Mu kigo k'ishuri hari ibyumba by'amashuri 18 kandi muri buri shuri harimo intebi 15. Icyo kigo k'ishuri kirimo intebi zingahe?

1.16 Ikuba ry'imibare na 100 na 1 000 igikubo cyayo kitarenze 2 000

Igikorwa

Musubize ibibazo bikurikira mwifashishije urugero mwahawe.

Urugero:

- | | | |
|-----------------------------|-------------------------------|------------------------|
| a) $19 \times 100 = 1\ 900$ | c) $1 \times 1\ 000 = 1\ 000$ | |
| b) $13 \times 100 = 1\ 300$ | d) $2 \times 1\ 000 = 2\ 000$ | |
| a) $12 \times 100 =$ | c) $1 \times 1\ 000 =$ | e) $19 \times 100 =$ |
| b) $17 \times 100 =$ | d) $10 \times 100 =$ | f) $2 \times 1\ 000 =$ |

Nsobanukiwe ko:

- Iyo ukuba umubare na 100 wandika uwo mubare ukandika amazeru abiri (00) inyuma y'uwo mubare.
- Iyo ukuba umubare na 1 000 wandika uwo mubare ukandika amazeru atatu (000) inyuma y'uwo mubare.

Imyitozo



Uzurisha 100 cyangwa 1 000

- | | |
|---------------------------------|---------------------------------|
| a) $\square \times 13 = 1\ 300$ | e) $\square \times 1 = 1\ 000$ |
| b) $16 \times \square = 1\ 600$ | f) $14 \times \square = 1\ 400$ |
| c) $10 \times \square = 1\ 000$ | g) $2 \times \square = 2\ 000$ |
| d) $17 \times \square = 1\ 700$ | h) $20 \times \square = 2\ 000$ |



Reka nisuzume



Huza umubare n'igisubizo kiri cyo ukurikije urugero

Urugero:

$$\begin{array}{ccccccc} 1\ 300 & \xrightarrow{\quad 100 \quad} & 17 & & & & \\ 1\ 700 & \cancel{\xrightarrow{\quad 100 \quad}} & 2 & & & & \\ 2\ 000 & \xrightarrow{\quad 1\ 000 \quad} & 13 & & & & \end{array}$$

- | | | | |
|----|-------|-------|----|
| a) | 700 | 1000 | 15 |
| b) | 800 | 1 000 | 2 |
| c) | 2 000 | 100 | 1 |
| d) | 1 000 | 100 | 8 |
| e) | 1 500 | 100 | 7 |

**1.17 Igabanya ridasagura ry'umubare w'imibarwa
4 n'umubare w'umubarwa 1 imibare itarenze
2 000**

Igikorwa cya 1

Mwuzuze iyi mbonerahamwe

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

Igikorwa cya 2

Musubize ibibazo bikurikira mukurikije urugero mwahawe

Urugero:

$$1\ 866 : 6 = 311$$

$$\begin{array}{r} 1866 \\ - 18 \\ \hline 006 \\ - 6 \\ \hline 06 \\ - 6 \\ \hline 0 \end{array}$$

$$1\ 484 : 7 = 212$$

$$\begin{array}{r} 1484 \\ - 14 \\ \hline 008 \\ - 7 \\ \hline 14 \\ - 14 \\ \hline 0 \end{array}$$

$$1\ 648 : 8 = 206$$

$$\begin{array}{r} 1648 \\ - 16 \\ \hline 004 \\ - 0 \\ \hline 48 \\ - 48 \\ \hline 0 \end{array}$$

- a) $1\ 236 : 4 =$ c) $1\ 648 : 8 =$ e) $1\ 768 : 2 =$
 b) $1\ 575 : 5 =$ d) $1\ 989 : 9 =$ f) $1\ 326 : 6 =$



Nsuzuma ngusuzume

- 1) Mwifashishe amakarita yanditseho imibare n'andi ariho ibimenyetso byo $:$ na $=$.

- A) 1 449 1 872 1 704 1 540 1 896 1 648 1 686
 B) 7 9 8 5 6 4 3
 C) 213 316 208 412 562 207 308

- Mufate ikarita imwe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cyo $:$
- Mukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cya $=$
- Muhitemo igisubizo mu makarita yo muri C

- 2) Mukore amakarita ariho imibare mwihiyiemo iri hagati ya 1 000 na 2 000 n'andi ariho ibimenyetso $-$ na $:$. Mukore nk'ibyakozwe hejuru.

Nsobanukiwe ko:

Iyo ugabanya imibare ukora ibi bikurikira:

1. Wandika imibare mu mahembe
2. Uhera ku binyagihumbi ugabanya, ugakurikizaho ibinyajana, ibinyacumi, ugaherukira ku binyabumwe.
3. Iyo ibinyagihumbi ari bike ugereranyije n'ikigabanya ufatira hamwe ibinyagihumbi n'ibinyajana.
4. Iyo ibyasigaye ku binyagihumbi n'ibinyajana hiyongereyeho n'ibinyacumi ari bike ugereranyije n'ikigabanya ushyiramo 0 ugakuramo hanyuma ukamanura ibinyabumwe.

Imyitozo



Itegerezze neza imbonerahamwe maze ukore ibyo wabajije

	1	2	3	4	5	6
A	1 064	1 998	2 000	1 872	1 267	1 872
B	9	8	7	6	5	8

Shaka ikigabanyo k'imibare ikurikira

- a) A 1 na B 2 c) A 3 na B 5 e) A 5 na B 3
b) A 2 na B 1 d) A 4 na B 4 f) A 4 na B 6

1.18 Amahurizo yo kugabanya

Urugero:

Abanyeshuri 96 bashyizwe mu matsinda 8 ku buryo bungana. Buri tsinda ririmo abanyeshuri bangahe?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Umubare w'abanyeshuri bose = 96 Umubare w'amatsinda ni 8	Umubare w'abanyeshuri bari muri buri tsinda	Umubare w'abanyeshuri bari muri buri tsinda ni $96:8 = 12$



Nsuzuma ngusuzume

- 1) Abanyeshuri 378 bashyizwe mu mashuri 9 ku buryo bungana. Buri shuri ryagiyemo abanyeshuri bangahe?
- 2) Akarere gafite ibitabo 894 gashaka gusaranganya ku buryo bungana amashuri 6. Buri shuri rizahabwa ibitabo bingahe?
- 3) Umurenge wacu ufite inzitiramibu 1 985 ushaka kugabanya ku buryo bungana utugari 5 tuwugize. Buri kagari kazabona inzitiramibu zingahe?
- 4) Umuhinzi yasaruye imifuka y'ibirayi 1 359 ayipakira amafuso 9 ku buryo bungana. Buri fuso yatwaye imifuka ingahe y'ibirayi?

Nsobanukiwe ko:

Iyo ugiye gukora ihurizo rrimo kugabanya imibare,

1. Ugaragaza ibyo baguhaye mu ihurizo
2. Ugaragaza ibyo bakubaza.
3. Wandika imibare wahawe mu ihurizo mu mahembe maze ukayigabanya hanyuma ukandika ikigabanyo.



Reka nisuzume



- 1) Keza afite amagi 1 768 ashaka gushyira mu makarito 8 ku buryo bungana. Buri karito izajyamo amagi angahe?
- 2) Abaterankunga bafite imipira yo gukina 1 484 bashaka gusaranganya ku buryo bungana uturere 7. Buri karere kazahabwa imipira ingahe?
- 3) Mubumbyi yabumbye amatafari 1 888 mu minsi 8. Shaka umubare w'amatafari abumba ku munsi umwe niba abumba amatafari angana buri munsi.
- 4) Gabanya ku buryo bungana ibitabo 1 845 ibigo by'amashuri 5. Buri kigo kizahabwa ibitabo bingahe?

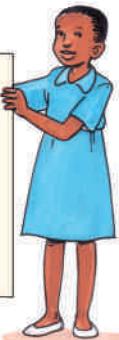
1.19 Isuzuma risoza umutwe wa 1

- 1) Andika 1 987 mu magambo:
- 2) Shaka umubare wasesenguwe: b 9 c 8 h 1 j 7 =
- 3) Tahura imibare yasesenguwe
$$(1 \times 1\ 000) + (7 \times 100) + (9 \times 10) + (8 \times 1) =$$
- 4) Vuga umwanya w'imibarwa iciyeho akarongo
 - a) 1 856
 - b) 1 787
 - c) 1 324
 - d) 1 258
- 5) Gereranya ukoreshjeje <, > na =
 - a) 1 095 1 059
 - b) 1 741 1 876
- 6) Tondeka iyi mibare uhoreye ku muto ujya ku munini
1 789, 1 879, 1 798, 1 897, 1 978, 1 987
- 7) Tondeka iyi mibare uhoreye ku munini ujya ku muto
1 978, 1 987, 1 789, 1 798, 1 879, 1 897
- 8) Shaka igiteranyo k'imibare ikurikira:
 - a) $1\ 434 + 563 =$
 - b) $895 + 1\ 009 =$
- 9) Shaka ikinyuranyo k'imibare ikurikira:
 - a) $1\ 785 - 762 =$
 - b) $1\ 967 - 1\ 356 =$
- 10) Shaka igikubo k'imibare ikurikira
 - a) $\begin{array}{r} 156 \\ \times 8 \\ \hline \end{array}$
 - b) $\begin{array}{r} 205 \\ \times 7 \\ \hline \end{array}$
 - c) $\begin{array}{r} 209 \\ \times 9 \\ \hline \end{array}$
 - d) $\begin{array}{r} 124 \\ \times 15 \\ \hline \end{array}$
 - e) $\begin{array}{r} 147 \\ \times 13 \\ \hline \end{array}$
- 11) Shaka ikigabanyo k'imibare ikurikira
 - a) $1\ 998 : 9 =$
 - b) $1\ 875 : 5 =$
- 12) Mu Kagari ka Bibare hatuye abagabo 367, abagore 445, urubyiruko 461 n'abana 723. Shaka umubare w'abaturage b'ako kagari.
- 13) Ishuri rifite abanyeshuri 1 874. Shaka umubare w'abahungu niba abakobwa ari 987.
- 14) Ikigo cy'amahugurwa gifite ibyumba by'inama 7 kandi muri buri cyumba harimo abahugurwa 275. Shaka umubare w'abantu bari guhugurirwa muri icyo kigo.
- 15) Gabanya ku buryo bungana inzitiramibu 1 998 imidugudu 6. Buri mudugudu uzahabwa inzitiramibu zingahe?

Imibare kuva kuri 0 kugera ku 5 000



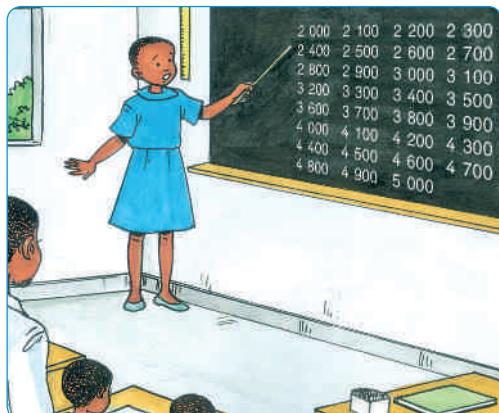
Rugero yoroye inkoko nyinshi zitera amagi. Ashimishwa no kubona amagi yuzuye agatebo. Ntamenya ayo yagurishije n'ayo asigaranye. Ubwo Rugero akeneye kumenya iki mu mibare kugira ngo azatere imbere?



2.1 Gusoma imibare kuva kuri 0 kugera ku 5 000

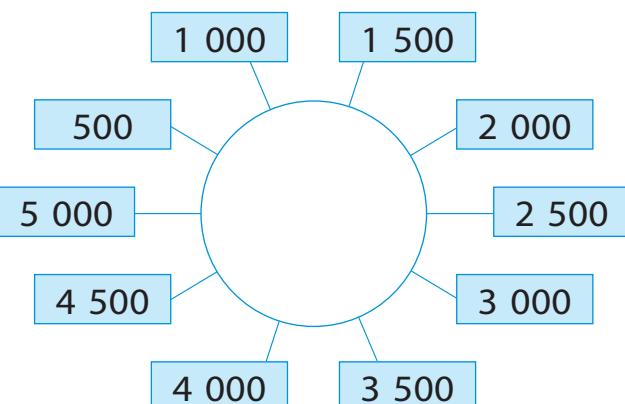
Igikorwa cya 1

- a) Mwitegerez maze musome imibare iri ku ishusho.
- b) Imibare iri ku ishusho igizwe n'imibarwa ingahe?



Igikorwa cya 2

- a) Musome imibare iri kuri uru ruziga muhereye ku muto mujya ku munini.
- b) Ni yihe mibare igizwe n'imibarwa ine?
- c) Vuga imibare igizwe n'imibarwa itatu.





Reka nisuzume



Fata amakarita yanditseho iyi mibare:

1	2	3	4	5	6	7	8	9	0
---	---	---	---	---	---	---	---	---	---

Ukore imibare 3 wishakiye iri hagati ya

- | | | |
|-------------------|-------------------|-------------------|
| a) 2 000 na 2 500 | c) 3 000 na 3 500 | e) 4 000 na 4 500 |
| b) 2 500 na 3 000 | d) 3 500 na 4 000 | f) 4 500 na 5 000 |

Imyitozo



Mu gakarito karimo udupapuro twanditseho imibare 1 251; 2 437; 3 317. Tombora agapapuro kamwe usome umubare wandidseho uranguruye ijwi.

2.2 Kwandika imibare kuva kuri 0 kugera ku 5 000

Igikorwa cya 1

Mukoreshe amakarita y'imibare mwahawe mukore imibare 5 iri hagati ya 2 000 na 5 000. Muyandike mu magambo hanyuma muyisomere bagenzi banyu.

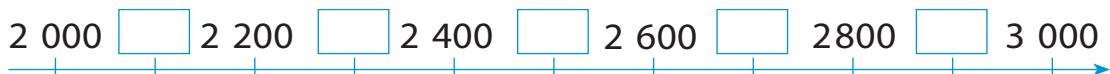
- | | | | | | |
|----|---|---|---|---|---|
| 1) | 1 | 2 | 3 | 4 | 5 |
| 2) | 6 | 7 | 8 | 9 | 0 |

Itegeko: Buri mubarwa ukora inshuro imwe mu mubare

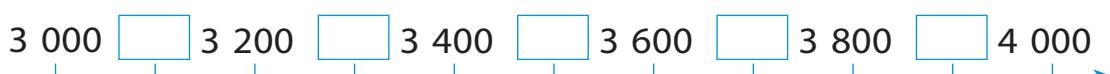
Igikorwa cya 2

Mushake imibare ibura kuri uyu murongo w'ibara, muyandike muyisome, munayandike mu magambo.

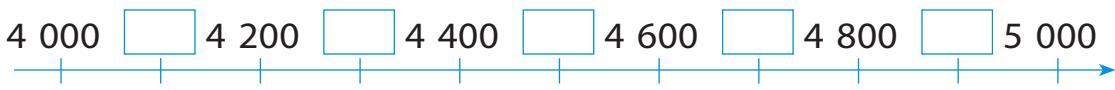
a)



b)



c)



Igikorwa cya 3

Mukoreshe amakarita y'imibare akurikira mukore imibare 5 iri hagati ya 2 000 na 5 000. Muyandike mu magambo. Muyisomere bagenzi banyu. Buri mubarwa ukora inshuro imwe mu mubare

- 1
- 2
- 3
- 4
- 5



Reka nisuzume



Shaka imibare wabajije maze uyandike mu mibare no mu magambo: Imibare iri hagati ya:

- a) 2 015 na 2 020
- b) 2 070 na 2 075
- c) 4 065 na 4 070

Imyitozo



- 1) Andika imibare ikurikira mu mibare cyangwa mu magambo
 - a) 4 924
 - b) Ibihumbi bitatu na cumi n'umunani
 - c) Ibihumbi bine magana inani na mirongo irindwi
 - d) 2 949
 - e) 4 157
 - f) Ibihumbi bibiri magana arindwi na mirongo itanu na kane
- 2) Koresha amakarita y'imibare akurikira:

- 4
- 3
- 2
- 1

ukore imibare 6 iri hagati ya 1 000 na 5 000 uyisome kandi uyandike mu ikayi yawe y'imyitozo, mu mibare no mu magambo.

- 3) Soma imibare iri mu mbonerahamwe ikurikira:
 - a) Iyanditse mu magambo uyandike mu mibare
 - b) Iyanditse mu mibare uyandike mu magambo

a	3 764: __	d	Ibihumbi bine magana kenda n'umunani: __	g	2 273: __
b	Ibihumbi bibiri magana arindwi na gatanu: __	e	4 936: __	h	Ibihumbi bitatu magana atanu na mirongo itatu n'ikenda: __
c	3 953: __	f	Ibihumbi bibiri magana atatu na karindwi: __	i	4 719: __

2.3 Gusesengura imibare kuva kuri 0 kugera ku 5 000

Igikorwa cya 1

Mwandike iyi mibare mu mbonerahamwe mukurikiza urugero mwahawe. Mugaragaze ibinyagihumbi, ibinyajana, ibinyacumi, n'ibinyabumwe.

Urugero: Umubare 2 456 ugizwe n'ibinyagihumbi 2, ibinyajana 4, ibinyacumi 5 n'ibinyabumwe 6

Ibinyagihumbi (h)	Ibinyajana (j)	Ibinyacumi (c)	Ibinyabumwe (b)
2	4	5	6

- | | | |
|----------|----------|----------|
| a) 3 546 | c) 4 969 | e) 4 935 |
| b) 2 932 | d) 2 794 | f) 3 794 |

Igikorwa cya 2

Mukoreshe imbonerahamwe y'ibara, mushyire buri mubare mu mwanya wawo.

- | | |
|------------------------|------------------------|
| a) 2 564 = h_ j_ c_ b_ | d) 2 936 = b_ j_ c_ h_ |
| b) 3 968 = c_ h_ b_ j_ | e) 3 917 = c_ j_ h_ b_ |
| c) 4 975 = j_ b_ h_ c_ | f) 4 795 = j_ b_ h_ c_ |

Igikorwa cya 3

Mwitegerezé ibinyagihumbi (h), ibinyajana(j), ibinyacumi (c) n'ibinyabumwe(b) maze mwandike umubare wasesenguwe.

a) h 2 c 7 b 5 j 9 =
b) b 9 j 8 h 4 c 1 =
c) j 6 b 4 c 6 h 2 =

d) c5 j 3 h 2 b 9 =
e) b 7 c 9 h 3 j5 =
f) c 9 h 4 b 4 j 1 =

Nsobanukiwe ko:

- Agaciro k'ibinyagihumbi (h) ari umubare wabyo $\times 1\,000$
- Agaciro k'ibinyajana (j) ari umubare wabyo $\times 100$
- Agaciro k'ibinyacumi (c) ari umubare wabyo $\times 10$
- Agaciro k'ibinyabumwe (b) ari umubare wabyo $\times 1$



Reka nisuzume



Sesengura iyi mibare mo ibinyagihumbi (h), ibinyajana (j), ibinyacumi (c) n'ibinyabumwe (b).

Urugero:

a) 4 765 = 4 000 + 700 + 60 + 5
b) 3 567 = $(3 \times 1\,000) + (5 \times 100) + (6 \times 10) + (7 \times 1)$
c) 2 893 = Ibinyagihumbi 2; Ibinyajana 8; Ibinyacumi 9;
Ibinyabumwe 3

a) 4 652 = d) 2 634 = g) 3 916 =
b) 2 879 = e) 4 971 = h) 2 397 =
c) 3 574 = f) 3 695 = i) 4 645 =



Nsuzuma ngusuzume

Mutahure imibare yasesenguwe

a) $(2 \times 1\,000) + (6 \times 100) + (3 \times 10) + (9 \times 1) =$
b) $4\,000 + 300 + 70 + 9 =$
c) Ibinyagihumbi 3; Ibinyajana 7; Ibinyacumi 4;
Ibinyabumwe 2 =

Imyitozo



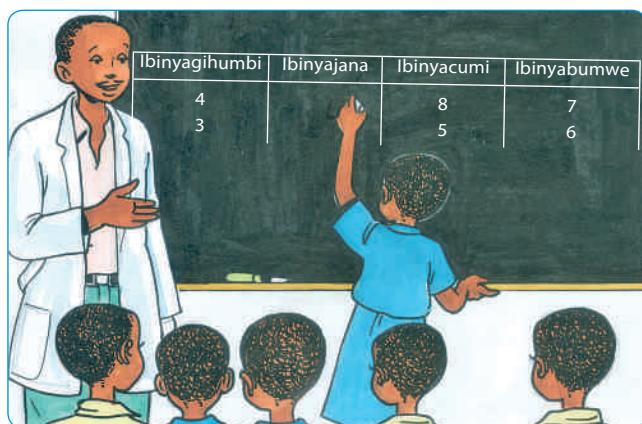
- 1) Koresha imbonerahamwe y'ibara, uvuge umwanya n'agaciro k'imibarwa iciyeho akarongo.
a) 3 564 c) 2 342 e) 2 917
b) 4 759 d) 4 925 f) 3 759
- 2) Shaka umubare wasesenguemo ibinyagihumbi (h), ibinyajana (j), ibinyacumi (c) n'ibinyabumwe (b).
a) b 5 h 4 c 7 j 9 = d) j 5 b 8 c 2 h 3 =
b) b 7 c 4 h 3 j 6 = e) j 8 b 9 h 4 c 7 =
c) c 9 h 2 b 6 j 7 = f) b 7 h 2 c 7 j 6 =
- 3) Sesengura imibare ikurikira mo ibinyagihumbi (h), ibinyajana (j), ibinyacumi (c) n'ibinyabumwe (b).
a) 4 657 = c) 3 965 = e) 2 645 =
b) 2 726 = d) 4 425 = f) 3 371 =
- 4) Shaka umubare wasesenguwe
a) $(2 \times 1\,000) + (6 \times 100) + (9 \times 10) + (4 \times 1) =$
b) $4\,000 + 500 + 40 + 9 =$
c) Ibinyagihumbi 3 + Ibinyajana 4 + Ibinyacumi 7 + Ibinyabumwe 5 =

2.4 Kugreranya imibare 2 itarenze 5 000

Igikorwa

Mwitegereze ibiri gukorwa ku ishusho.

Mukurikize urugero m wahawe maze mugereranye imibare ikurikira:



Urugero:

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
4	1	8	7
3	9	5	6

3 956 urutwa na 4 187 bikandikwa gutya: $3\ 956 < 4\ 187$

- | | |
|-------------------------------------|-------------------------------------|
| 1) 3 671 <input type="text"/> 4 738 | 3) 4 678 <input type="text"/> 2 104 |
| 2) 4 123 <input type="text"/> 3 214 | 4) 2 340 <input type="text"/> 3 340 |

Nsobanukiwe ko:

Iyo ugereranya imibare ibiri wita kuri ibi bikurikira:

1. Uhera ku binyagihumbi ugana ku binyabumwe ukagenda ugereranya buri mubarwa.
2. Iyo ibinyagihumbi bingana uhita ugereranya ibinyajana
3. Iyo ibinyajana bingana uhita ugereranya ibinyacumi
4. Iyo ibinyacumi bingana ugereranya ibinyabumwe
5. Ibyo byose iyo birangiye wamenye umubare umunini n'umuto cyangwa wabonye ko imibare ingana ukoresha ibimenyetso by'igereranya ari byo:
< (Birutwa), > (Biruta) na = (Bihwanye)

Ikitonderwa:

Ibimenyetso by'igereranya bya < na > bigomba kuba bireba buri gihe ahari umubare munini.



Reka nisuzume



Koresha <, > na = ugereranye abantu batuye mu kagari ka Kamukina

Abagabo	Abagore	Urubyiruko	Abana
1 823	1 987	3 298	4 567

Gereranya umubare

- | | |
|--------------------------------|---------------------------|
| a) w'abagore n'uwan'abagabo | c) w'abana n'uwan'abagabo |
| b) w'abagabo n'uwan'urubyiruko | d) w'abagabo n'uwan'abana |

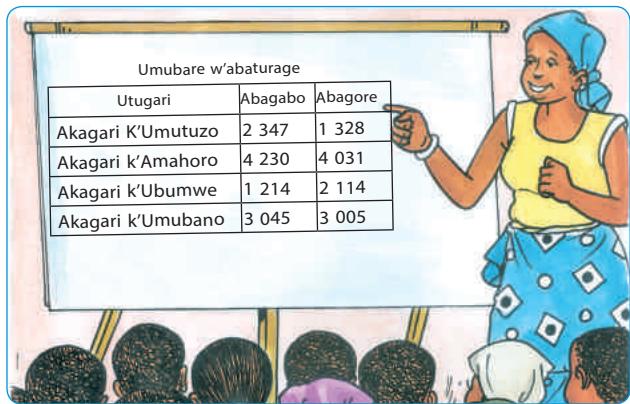


Nsuzuma ngusuzume

Mwitegerezze ishusho
mugereranye imibare
y'abaturage batuye
muri utu tugari.

Muri utu tugari ni
akahe kagari gafite

- 1) Abagabo bake?
- 2) Abagore bake?
- 3) Abagabo benshi?
- 4) Abagore benshi?
- 5) Mukoresheje <, > na = mugereranye:
 - a) Umubare w'abagabo batuye mu kagari k'Umutuzo n'Akagari k'Amahoro
 - b) Umubare w'abagabo batuye mu kagari k'Ubumwe n'Akagari k'Umubano
 - c) Umubare w'abagabo batuye mu kagari k'Amahoro n'Akagari k'Umubano
 - d) Umubare w'abagabo batuye mu kagari k'Umutuzo n'Akagari k'Ubumwe



Imyitozo



Mukoreshe <, > na = mugereranye imibare ikurikira

- a) 4 958 4 958
- b) 3 174 2 797
- c) 2 962 3 637
- d) 4 253 2 352
- e) 3 764 4 674
- f) 2 315 4 135
- g) 2 309 2 309
- h) 3 247 3 274

2.5 Gutondeka imibare kuva ku 2 000 kugera ku 5 000

A. Gutondeka imibare kuva ku muto ujya ku munini

Igikorwa cya 1

Tondeka iyi mibare uhoreye ku mubare muto ujya ku munini ukurikije urugero wahawe:

Urugero: 4 725, 3 257, 4 752

Ibinyagihumbi (h)	Ibinyajana (j)	Ibinyacumi (c)	Ibinyabumwe (b)
3	2	5	7
4	7	2	5
4	7	5	2

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

Igikorwa cya 2

Mukurikize urugero rugaragara ku ishusho, mutondeke imibare ikurikira muva ku muto mujya ku munini.



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

Nsobanukiwe ko:

Iyo utondeka imibare, ukoresha imbonerahamwe y'ibara ukagereranya:

- Ibinyagihumbi ureba uko birutanwa.
- Wasanga bingana ukagereranya ibinyajana.
- Na byo wasanga bingana ukagereranya ibinyacumi kugeza ubonye uko imibare irutana.
- Maze ukayikurikiranya uko wategetswe kuyitondeka.



Reka nisuzume



Tondeka iyi mibare iri ku makarita uva ku mubare muto ujya ku munini. Sobanura uko wabonye igisubizo.

2 456

3 271

1 937

4 010

4 101

B. Gutondeka imibare uva ku mubare munini ujya ku muto

Igikorwa cya 1

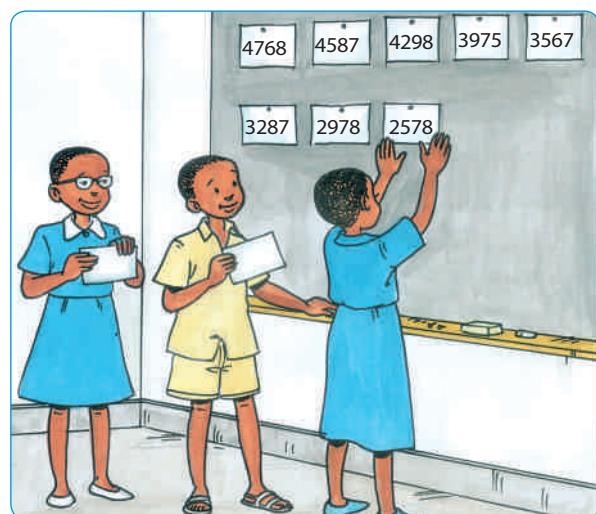
Mukoreshe amakarita mwigane ibiri gukorwa ku ishusho, mutondeke imibare muhereye ku munini mujya ku muto:

a) 4 321 3 214 2 431

 4 231 3 412 2 312

b) 2 341 4 123 3 124

 2 143 3 345 4 533



Igikorwa cya 2

Tondeka iyi mibare uhoreye ku mubare munini ujya ku muto ukurikije urugero wahawé

Urugero: 4 526, 4 735, 4 647

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

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



Nsuzuma ngusuzume

- 1) Tondeka uhoreye ku mubare muto ujya ku munini
 - a) 2 938, 2 893, 3 892
 - b) 4 328, 3 428, 2 834
- 2) Tondeka uhoreye ku mubare munini ujya ku muto
 - a) 4 369, 3 496, 4 693
 - b) 4 153, 4 315, 3 451

Imyitozo



- 1) Tondeka uhoreye ku mubare muto ujya ku munini
 - a) 4 739, 4 973, 4 397
 - b) 3 479, 4 749, 4 973
 - c) 4 128, 4 182, 4 018, 4 108
 - d) 4 107, 4 701, 4 170, 4 071
- 2) Tondeka uhoreye ku mubare munini ujya ku muto
 - a) 2 643, 4 362, 3 263
 - b) 3 647, 4 763, 4 367
 - c) 2 974, 2 479, 2 947
 - d) 3 238, 3 823, 3 283, 3 832

2.6 Guteranya imibare igiteranyo cyayo kitarenze 5 000

A. Iteranya ritabitsa ry'imibare igiteranyo cyayo kitarenze 5 000

Igikorwa

Musubize ibibazo bikurikira mukurikije urugero mwahawwe

Urugero: $1\ 213 + 2\ 675 =$

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
1	2	1	3
+ 2	6	7	5
3	8	8	8

a) $3\ 454$ b) $2\ 523$ c) $3\ 435$ d) $4\ 017$ e) $2\ 454$
 $\underline{+ 1\ 421}$ $\underline{+ 2\ 175}$ $\underline{+ 1\ 543}$ $\underline{+ 972}$ $\underline{+ 2\ 452}$

Nsobanukiwe ko:

Iyo uteranya imibare ukora ibi bikurikira:

1. Wifashisha imbonerahamwe y'ibara ukandikamo imibare
2. Ugahera ku binyabumwe uteranya ugaherukira ku binyagihumbi.
3. Wandukura igiteranyo ubonye.



Reka nisuzume



Teranya imibare ikurikira:

a) $4\ 235 + 763 =$ d) $2\ 990 + 2\ 009 =$
b) $2\ 567 + 1\ 421 =$ e) $3\ 735 + 1\ 251 =$
c) $3\ 909 + 1\ 090 =$ f) $4\ 056 + 823 =$



Nsuzuma ngusuzume

Ifashishe amakarita yanditseho imibare n'andi ariho ibimenyetso bya $+$ na $=$

- A) 2 524 3 521 3 274 4 215 2 425 3 156 4 123
 B) 2 471 1 268 1 625 581 2 434 1 632 675
 C) 4 798 4 788 4 796 4 995 4 859 4 789 4 899

- Ufate ikarita imwe muri A
- Ukurikizeho ikarita yanditseho ikimenyetso cyo $+$
- Ukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Ukurikizeho ikarita yanditseho ikimenyetso cya $=$
- Uhitemo igisubizo mu makarita yo muri C

Imyitozo



a) $3\ 543$ b) $2\ 235$ c) $3\ 972$ d) $4\ 675$ e) $2\ 454$
 $\underline{+ 1\ 456}$ $\underline{+ 2\ 704}$ $\underline{+ 1\ 017}$ $\underline{+ 323}$ $\underline{+ 2\ 452}$

B. Iteranya ribitsa ry'imibare igiteranyo cyayo
kitarenze 5 000

Igikorwa

Kurikiza urugero wahawe uteranye imibare ikurikira:

Urugero: $2\ 725 + 1\ 579 =$

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
1	1	1	
2	7	2	5
+ 1	5	7	9
4	3	0	4

a) $2\ 897$ b) $3\ 093$ c) $1\ 395$ d) $1\ 024$ e) $1\ 154$
 $\underline{+ 1\ 654}$ $\underline{+ 1\ 379}$ $\underline{+ 3\ 499}$ $\underline{+ 3\ 699}$ $\underline{+ 3\ 779}$

Nsobanukiwe ko:

Iyo uteranya imibare ubitsa ukora ibi bikurikira:

1. Wifashisha imbonerahamwe y'ibara ukandikamo imibare
2. Uhera ku binyabumwe ugana ku binyagihumbi uteranya
3. Iyo igiteranyo k'ibinyabumwe kigizwe n'imibarwa 2 ni ukuvuga uhereye ku 10 kuzamura wandika ikinyabumwe k'icyo giteranyo ukabitsa ikinyacumi hejuru y'ibinyacumi by'imibare iteranywa ugakomeza utyo uteranya.
4. Wandukura igiteranyo ubonye.



Reka nisuzume



Teranya imibare ikurikira:

- | | |
|------------------------|------------------------|
| a) $2\ 943 + 1\ 979 =$ | c) $1\ 239 + 3\ 678 =$ |
| b) $3\ 967 + 797 =$ | d) $2\ 795 + 2\ 089 =$ |



Nsuzuma ngusuzume

Ifashishe amakarita yanditseho imibare n'andi ariho ibimenyetso byo $+$ na $=$

- | | | | | | | | |
|----|-------|-------|-------|-------|-------|-------|-------|
| A) | 1 924 | 2 905 | 3 024 | 1 952 | 2 642 | 3 721 | 2 313 |
| B) | 2 789 | 1 978 | 1 879 | 2 897 | 2 198 | 1 089 | 2 679 |
| C) | 4 903 | 4 810 | 4 992 | 4 713 | 4 849 | 4 883 | 4 840 |

- Ufate ikarita imwe muri A
- Ukurikizeho ikarita yanditseho ikimenyetso cyo $+$
- Ukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Ukurikizeho ikarita yanditseho ikimenyetso cya $=$
- Uhitemo igisubizo mu makarita yo muri C

Imyitoto



Teranya iyi mibare

a)	4 072	b)	3 235	c)	3 472	d)	3 765	e)	3 246
	<u>+ 928</u>		<u>+ 757</u>		<u>+ 1 097</u>		<u>+ 997</u>		<u>+ 1 475</u>

2.7 Amahurizo yo guteranya imibare igiteranyo cyayo kitarenze 5 000

Urugero:

Inzu itubura ibitabo itubura ibitabo 2 567 ku manywa na 2 433 n'ijoro. Shaka umubare w'ibitabo bituburwa buri munsi.

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Ibitabo bituburwa ku manywa ni 2 567	Umubare w'ibitabo bituburwa buri munsi	Umubare w'ibitabo bituburwa buri munsi: $2\ 567 + 2\ 433 = 5\ 000$
Ibitabo bituburwa n'ijoro ni 2 433		$ \begin{array}{r} 1\ 1\ 1 \\ 2\ 5\ 6\ 7 \\ +\ 2\ 4\ 3\ 3 \\ \hline 5\ 0\ 0\ 0 \end{array} $

Nsobanukiwe ko:

Iyo ugiye gukora ihurizo ryo guteranya imibare:

1. Ugaragaza ibyo baguhaye
2. Ugaragaza ibyo bakubaza
3. Wandika impagarike ibyo wahawe ukabiteranya.



Nsuzuma ngusuzume

- 1) Uruganda rukora amabati 2 345 mbere ya saa sita na 2 649 nyuma ya saa sita. Shaka umubare w'amabati urwo ruganda rukora buri munsi.

- 2) Akagari kacu kateye ibiti 1 897 umwaka ushize naho uyu mwaka kamaze gutera ibiti 3 098. Akagari kacu kamaze gutera ibiti bingahe muri iyi myaka ibiri?
- 3) Urwunge rw'amashuri rwo mu murenge wacu rwigamo abanyeshuri 3 785 mu mashuri abanza n'abandi 1 215 mu mashuri yisumbuye. Shaka umubare w'abanyeshuri biga muri iryo shuri.
- 4) Muri sitade y'umupira w'intoki hari abafana b'abagore 2 178 n'ab'abagabo 2 789. Shaka umubare w'abafana bose bari muri iyo sitade.



Reka nisuzume



- 1) Mu bitaro harimo abarwayi 2 679, abarwaza 1 829, abaforomo 245 n'abaganga 79. Shaka umubare w'abantu bari muri ibyo bitaro.
- 2) Muri gariyamoshi harimo abagabo 2 189, abagore 1 689 n'abana 789. Shaka umubare w'abantu bari muri iyo gariyamoshi.
- 3) Mu cyumba k'inama harimo abagabo 3 978 n'abagore 978. Muri icyo cyumba harimo abantu bangahe?
- 4) Umwaka ushize Butera yasaruye amashu 3 197 naho uyu mwaka yasaruye 1 789. Mu myaka yombi amaze gusarura amashu angahe?

Imyitozo



- 1) Ishuri ryacu ryahumbitse ingemwe z'ibiti by'inturusu 1 765 n'iz'ibiti by'imbuto 2 103. Ubwo ryahumbitse ingemwe zingahe zose hamwe?
- 2) Mu masengesho harimo abagabo 1 265, abagore 1 620 n'abana 210. Ubwo hari abantu bangahe bose hamwe?
- 3) Mu ishyamba ry'ishuri ryacu hateye inturusu 1 543 gereveriya 746 n'imisave 1 220. Ubwo ibyo biti byose hamwe ni bingahe?

2.8 Gukuramo imibare itarenze 5 000

A. Ikuramo ridatira ry'imibare itarenze 5 000

Igikorwa

Musubize ibibazo bikurikira mukurijke urugero mwahawwe

Urugero: $4\ 568 - 3\ 226 =$

	Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
-	4 3	5 2	6 2	8 6
	1	3	4	2

a) $4\ 956$ b) $3\ 599$ c) $2\ 975$ d) $3\ 694$ e) $4\ 799$
 $- 3\ 124$ $- 3\ 467$ $- 1\ 453$ $- 2\ 573$ $- 3\ 429$

Nsobanukiwe ko:

Iyo ukuramo imibare:

- Wifashisha imbonerahamwe y'ibara
- Wandika imibare mu mbonerahamwe y'ibara
- Uhera ku binyabumwe ukuramo ugaheruka ibinyagihumbi.
- Wandukura ikinyuranyo ubonye.



Reka nisuzume



Kuramo imibare ikurikira:

a) $4\ 795 - 2\ 563 =$ c) $2\ 897 - 1\ 794 =$ e) $2\ 765 - 1\ 312 =$
b) $3\ 765 - 2\ 431 =$ d) $4\ 965 - 3\ 941 =$ f) $3\ 956 - 2\ 932 =$



Nsuzuma ngusuzume

Mwifashishe amakarita yanditseho imibare n'andi ariho
ibimenyetso byo $-$ na $=$

- A) 4 967 3 857 2 957 4 985 3 758 2 896 4 738
B) 3 624 2 523 1 915 3 712 2 715 1 465 2 617
C) 2 121 1 043 1 343 1 334 1 273 1 431 1 042

- Ufate ikarita imwe muri A
- Ukurikizeho ikarita yanditseho ikimenyetso cyo -
- Ukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Ukurikizeho ikarita yanditseho ikimenyetso cya =
- Uhitemo igisubizo mu makarita yo muri C

Imyitozo



a) 2 543	b) 4 745	c) 3 729	d) 2 765	e) 3 599
<u>- 1 412</u>	<u>- 3 230</u>	<u>- 2 517</u>	<u>- 1 523</u>	<u>- 3 429</u>

B. Ikuramo ritira ry'imibare itarenze 5 000

Igikorwa

Mukore ibibazo bikurikira mukurikije urugero mwahawe

Urugero: $4\ 755 - 2\ 967 =$

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
3	16	14	15
4	6	4	5
X	X	5	5
- 2	9	6	7
1	7	8	8

a) 4 243	b) 3 613	c) 2 345	d) 3 524	e) 4 241
<u>- 2 798</u>	<u>- 2 379</u>	<u>- 1 769</u>	<u>- 2 659</u>	<u>- 1 879</u>

Nsobanukiwe ko:

Iyo ukuramo imibare utira ukora ibi bikurikira:

1. Wifashisha imbonerahamwe y'ibara
2. Wandika umubare munini hejuru y'umuto
3. Uhera ku binyabumwe ugana ku binyagihumbi
4. Iyo ukuramo ibinyabumwe bidashoboka, utira ikinyacumi kikongera 10 ku binyabumwe ugakuramo.
5. Ukomeza utyo, kugeza ukuyemo ibinyagihumbi.



Reka nisuzume



Kuramo imibare ikurikira

a) $4\ 571 - 3\ 796 =$

d) $2\ 345 - 1\ 687 =$

b) $3\ 423 - 2\ 975 =$

e) $4\ 567 - 2\ 789 =$

c) $4\ 234 - 3\ 596 =$

f) $3\ 567 - 1\ 678 =$



Nsuzuma ngusuzume

Mwifashishe amakarita yanditseho imibare n'andi ariho
ibimenyetso byo $-$ na $=$

- | | | | | | | | |
|----|-------|-------|-------|-------|-------|-------|-------|
| A) | 4 123 | 3 105 | 4 234 | 2 346 | 4 241 | 5 000 | 4 000 |
| B) | 2 079 | 1 987 | 3 978 | 1 879 | 3 786 | 4 976 | 3 298 |
| C) | 1 118 | 467 | 702 | 24 | 2 044 | 455 | 256 |

- Ufate ikarita imwe muri A
- Ukurikizeho ikarita yanditseho ikimenyetso cyo $-$
- Ukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Ukurikizeho ikarita yanditseho ikimenyetso cya $=$
- Uhitemo igisubizo mu makarita yo muri C

Imyitozo



Shaka ikinyuranyo

a) $4\ 678$	b) $2\ 785$	c) $4\ 009$	d) $3\ 234$	e) $4\ 341$
$- 2\ 789$	$- 1\ 806$	$- 3\ 967$	$- 2\ 567$	$- 1\ 779$

2.9 Amahurizo yo gukuramo imibare itarenze 5 000

Urugero

Mu kagari kacu hatuye abaturage 4 352 muri bo 3 974 bafite mituweri. Ubwo abaturage badafite mituweri ni bangahe?

Ibyo mfite	Ibyo mbazwa	Inzira n'gisubizo
Abaturage bose ni 4 352 Abafite mituweri ni 3 974	Abadafite mituweri	Abadafite mituweri ni $4\ 352 - 3\ 974 = 378$

Nsobanukiwe ko:

Iyo ugiye gukora ihurizo ririmo gukuramo imibare:

1. Ugaragaza ibyo baguhaye
2. Werekana ibyo bagusabye
3. Wandika umubare munini wahawe mu ihurizo ubuhagaze maze ukawuvanamo umubare muto wahawe mu ihurizo hanyuma ukandika ikinyuranyo.



Nsuzuma ngusuzume

- 1) Keza yabumbye amatafari 3 567 arayanika. Ayanure hamenekamo amatafari 987, ubwo yasigaranye amatafari angahe?
- 2) Umuyobozi w'ishuri ryacu yaguze ibitabo 4 123, abigejeje ku ishuri ahaho abanyeshuri n'abarezi ibitabo 1 456. Yasigaranye ibitabo bingahe?
- 3) Umurerwa yasaruye avoka 3 214 arazitara, azitaruye asanga 789 muri zo zaraboz. Yasigaranye avoka nzima zingahe?
- 4) Akagari ka Kamukina gafite abaturage 4 132. Muri bo 1 968 bari mu kiciro cya 2 cy'ubudehe. Shaka umubare w'abaturage bari mu bindi byiciro by'ubudehe.



Reka nisuzume



- 1) Mu kagari dutuyemo harimo inzu 4 356 muri zo 2 789 ni inzu z'ikitegererezo. Shaka umubare w'inzu ziciriritse ziri muri ako kagari?
- 2) Inkoko za Tunga zaturaze amagi 3 456, uwo munsi mu nzu yazo hinjiramo inturo. Zirasahinda zihunga hameneka amagi 987. Hasigaye amagi angahe?
- 3) Umurenge wacu wateye ibiti 4 321 ku munsi w'umuganda. 3 567 muri byo ni byo byameze. Shaka umubare w'ibiti bitameze.

Imyitozo



Itegereze neza iyi
mbo nerahamwe
maze ukore neza
ibyo wabajijwe

	1	2	3	4
A	4 254	3 672	2 675	4 734
B	2 697	2 825	1 796	2 976
C	659	1 098	2 978	199
D	591	1 279	1 597	167

- 1) Shaka igiteranyo k'imibare ikurikira
 - a) A 1 + C 1 =
 - c) A 2 + C 2 =
 - e) A 3 + C 4 =
 - b) A 1 + D 1 =
 - d) A 2 + D 2 =
 - f) A 3 + D 3 =
- 2) Shaka ikinyuranyo k'imibare ikurikira
 - a) A 1 - B 1 =
 - c) A 1 - D 1 =
 - e) A 2 - B 2 =
 - b) A 1 - C 1 =
 - d) A 1 - D 3 =
 - f) A 2 - C 2 =

2.10 Ikuba ry'umubare w'imibarwa 3 n'undi w'imibarwa 2 igikubo kitarenze 5 000

Igikorwa

Musubize ibibazo bikurikira mukurikije urugero mwahawe:

Urugero:

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

- a) 295×15
- b) 198×19
- c) 356×12
- d) 139×34
- e) 108×45
- f) 209×23
- g) 247×19
- h) 169×24

Nsobanukiwe ko:

Iyo ukuba umubare w'imibarwa 3 n'undi w'imibarwa 2:

1. Wandika imibare mu mbonerahamwe y'ibara
2. Ukubisha ikinyabumwe kugeza urangije imibarwa yose
3. Ukubisha ikinyacumi k'igikuba ukandika ikinyabumwe k'igikubo munsi y'ikinyacumi k'igikubo wabonye.
4. Uteranya ibikubo byose uhoreye ku binyabumwe.



Nsuzuma ngusuzume

Ifashishe amakarita yanditseho imibare n'andi ariho
ibimenyetso byo \times na $=$

- A) 237 159 368 193 219 317 412
B) 21 29 13 25 18 15 12
C) 4 784 3 942 4 977 4 755 4 825 4 944 4 611

- Ufate ikarita imwe muri A
- Ukurikizeho ikarita yanditseho ikimenyetso cyo \times
- Ukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Ukurikizeho ikarita yanditseho ikimenyetso cya $=$
- Uhitemo igisubizo mu makarita yo muri C

Imyitozo



Soma imbonerahamwe ikurikira, ushake igikubo wabajijwe.

	1	2	3	4
A	156	176	241	354
B	29	18	31	15
C	19	24	13	26
D	109	208	317	367

- a) $A\ 1 \times B\ 1 =$ c) $A\ 1 \times B\ 2 =$ e) $A\ 1 \times B\ 3 =$
b) $A\ 1 \times C\ 1 =$ d) $A\ 1 \times C\ 2 =$ f) $A\ 1 \times C\ 3 =$

2.11 Amahurizo yo gukuba umubare w'imibarwa 3 n'undi w'imibarwa 2 igikubo kitarenze 5 000

Urugero:

Mu rusengero harimo intebe 297. Kuri buri ntebe hicara abantu 16. Urwo rusengero rwakwakira abantu bangahe?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Umubare w'intebe ni 297	Umubare w'abantu bakwirwa mu rusengero	Umubare w'abantu bakwirwa mu rusengero $297 \times 16 = \text{Abantu } 4\,752$
Umubare w'abantu bicara ku ntebe imwe ni 16		$ \begin{array}{r} 297 \\ \times 16 \\ \hline 1782 \\ + 297 \\ \hline 4752 \end{array} $ +4 +5

Ndakubisha 6

- $6 \times 7 = 42$ Twandika 2 Tukabika 4
- $6 \times 9 = 54$ Twongeraho 4 tukandika 8 tukabika 5
- $6 \times 2 = 12$ Twongeraho 5 tukandika 17

Ndakubisha 1

- $1 \times 7 = 7$
- $1 \times 9 = 9$
- $1 \times 2 = 2$

Nsobanukiwe ko:

Iyo ugiye gukora ihurizo ririmo gukuba imibare,

1. Werekana ibyo baguhaye mu ihurizo
2. Werekana ibyo bakubaza mu ihurizo
3. Wandika imibare wahawe mu ihurizo mu buryo buhagaze maze ukayikuba hanyuma ukandika igikubo.



Nsuzuma ngusuzume

- 1) Gahire yateye inanasi ku mirongo 316. Shaka umubare

w'inanasi yateye niba kuri buri murongo yarahateye inanasi 15.

- 2) Muhongerwa afite uduetebo tw'amagi 159. Shaka umubare w'amagi afite niba muri buri gatebo harimo amagi 30.



Reka nisuzume



- 1) Mu cyumba k'inama harimo ibihande 25 birimo intebé 189 muri buri gihande. Shaka umubare w'intebé ziri muri icyo cyumba k'inama.
- 2) Ku munsi w'ingabo, abasirikari bakoze imirongo 245 kuri buri murongo hajyaho abasirikari 19. Shaka umubare w'abasirikari bitabiriye uwo munsi mukuru.

2.12 Ikuba ry'imibare na 100 na 1 000 igikubo kitarenze 5 000

Igikorwa cya 1

Mukube iyi mibare mukurikije urugero mwahawe

Urugero:

a) $29 \times 100 = 2\,900$
b) $45 \times 100 = 4\,500$

a) $5 \times 1\,000 =$
b) $4 \times 1\,000 =$

Nsobanukiwe ko:

- Iyo ukuba umubare na 100 wandika uwo mubare ukandika amazeru abiri (00) inyuma y'uwo mubare.
- Iyo ukuba umubare na 1 000 wandika uwo mubare ukandika amazeru atatu (000) inyuma y'uwo mubare.



Reka nisuzume



Murushanwe gushaka byihuse igikubo k'iyi mibare:

a) $42 \times 100 =$ c) $2 \times 1\,000 =$ e) $49 \times 100 =$
b) $37 \times 100 =$ d) $36 \times 100 =$ f) $1 \times 1\,000 =$



Nsuzuma ngusuzume

- Muhagarare imbere y'utudobo tubiri: Kamwe karimo amakarita yanditseho imibare 10 itandukanye,
- Akandi karimo amakarita yanditseho ibikubo 10 bitandukanye. Buri wese age agenda akoremo ikarita imwe mu kadobo ka mbere
- Mugenzi we ashake igikubo cyawo na 100 cyangwa 1 000 mu kadobo ka kabiri.

Imyitozo



Uzurisha 10, 100 cyangwa 1 000

a) $\boxed{} \times 3 = 3\ 000$

e) $\boxed{} \times 4 = 4\ 000$

b) $46 \times \boxed{} = 4\ 600$

f) $35 \times \boxed{} = 3\ 500$

c) $5 \times \boxed{} = 5\ 000$

g) $3 \times \boxed{} = 3\ 000$

d) $28 \times \boxed{} = 2\ 800$

h) $2 \times \boxed{} = 2\ 000$

2.13 Igabanya ridasagura ry'umubare w'imibarwa 4 n'umubare w'umubarwa 1 imibare itarenze 5 000

Igikorwa

Gabanya imibare ikurikira ukurikije urugero wahawe

Urugero:

a) $3\ 321 : 9 = 369$

$$\begin{array}{r} 3321 \\ - 27 \\ \hline 5+10 \\ 062 \\ - 54 \\ \hline 81 \\ - 81 \\ \hline 0 \end{array}$$

b) $4\ 896 : 8 = 612$

$$\begin{array}{r} 4896 \\ - 48 \\ \hline 009 \\ - 8 \\ \hline 16 \\ - 16 \\ \hline 0 \end{array}$$

c) $4\ 963 : 7 = 709$

$$\begin{array}{r} 4963 \\ - 49 \\ \hline 006 \\ - 0 \\ \hline 63 \\ - 63 \\ \hline 0 \end{array}$$

a) $3\ 975 : 3 =$	c) $4\ 985 : 5 =$	e) $4\ 256 : 7 =$
b) $4\ 648 : 4 =$	d) $2\ 706 : 6 =$	f) $3\ 872 : 8 =$



Nsuzuma ngusuzume

Ifashishe amakarita yanditseho imibare n'andi ariho ibimenyetso byo $:$ na $=$

- | | | | | | | | |
|----|-------|-------|-------|-------|-------|-------|-------|
| A) | 4 095 | 4 563 | 4 956 | 4 864 | 3 966 | 4 868 | 4 896 |
| B) | 5 | 9 | 7 | 8 | 6 | 4 | 3 |
| C) | 1 632 | 608 | 708 | 819 | 1 217 | 661 | 507 |

- Ufate ikarita imwe muri A
- Ukurikizeho ikarita yanditseho ikimenyetso cyo $:$
- Ukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Ukurikizeho ikarita yanditseho ikimenyetso cya $=$
- Uhitemo igisubizo mu makarita yo muri C

Nsobanukiwe ko:

Iyo ugabanya imibare ukora ibi bikurikira:

1. Wandika imibare mu mahembe
2. Uhera ku binyagihumbi ugabanya; ugakurikizaho ibinyajana; hagakurirkiraho ibinyacumi; ugaheruka ibinyabumwe.
3. Iyo ibinyagihumbi ari bike ugereranyije n'ikigabanya ufatira hamwe ibinyagihumbi n'ibinyajana.
4. Iyo ibyasigaye ku binyagihumbi n'ibinyajana hiyongereyeho n'ibinyacumi ari bike ugereranyije n'ikigabanya ushyiramo zero (0) ugakuramo hanyuma ukamanura ibinyabumwe.



Reka nisuzume

Gabanya	a) $4\ 985 : 5 =$	c) $2\ 736 : 9 =$
	b) $3\ 872 : 8 =$	d) $4\ 963 : 7 =$

Imyitozo



- 1) Itegereze imbonerahamwe ushake ikigabanyo k'imibare ikurikira:

	1	2	3	4	5
A	4 765	4 698	3 584	2 976	4 563
B	5	6	7	8	9

- a) A 1 na B 1 c) A 3 na B 3 e) A 5 na B 5
 b) A 2 na B 2 d) A 4 na B 4 f) A 4 na B 2
- 2) Shaka imibare y'imibarwa 3 yagabanyijwe n'umubare w'umubarwa 1 kugira ngo haboneke ibigabanyo bikurikira:
 a) $\underline{\quad} : 5 = 153$ b) $\underline{\quad} : 4 = 124$ c) $\underline{\quad} : 6 = 496$

2.14 Amahurizo yo kugabanya

Urugero:

Gabanya ku buryo bungana inzitiramibu 4 875, imidugudu 5. Buri mudugudu uzahabwa inzitiramibu zingahe?

Ibyo mfite	Ibyo mbazwa	Inzira nigisubizo
Umubare w'inzitiramibu zose ni 4 875 Umubare w'imidugudu ni 5	Umubare w'inzitiramibu buri mudugudu uzahabwa	$\begin{array}{r} \text{Umubare w'inzitiramibu} \\ \text{buri mudugudu uzahabwa} \\ = 4\,875 : 5 = 975 \end{array}$ $ \begin{array}{r} 4875 \\ - 45 \\ \hline 037 \\ - 35 \\ \hline 25 \\ - 25 \\ \hline 00 \end{array} $ <p>Buri mudugudu uzahabwa inzitiramibu 975</p>

Nsobanukiwe ko:

Iyo ugiye gukora ihurizo ririmo kugabanya imibare:

1. Werekana ibyo baguhaye mu ihurizo
2. Werekana ibyo bakubaza mu ihurizo
3. Wandika imibare wahawe mu ihurizo mu mahembe maze ukayigabanya hanyuma ukandika ikigabanyo.



Nsuzuma ngusuzume

- 1) Ibigo by'amashuri 9 byasaranganyijwe ibitabo by'imibare 4 581 ku buryo bungana. Buri kigo cyahawe ibitabo bingahe?
- 2) Ibigo nderabuzima 7 byatewe inkunga y'ibitanda 4 991. Ibyo bitanda babigabanye ku buryo bungana. Buri kigo nderabuzima cyahawe ibitanda bingahe?
- 3) Gabanya ku buryo bungana ingemwe z'ikawa 4 986, imirenge 9. Buri murenge uzahabwa ingemwe zingahe?
- 4) Mbabazi asarura inanasi 3 795 mu bihembe 5 by'ihinga. Shaka umubare w'inanasi asarura buri muri buri gihembwe k'ihinga niba asarura inanasi zingana buri gihembwe.



Reka nisuzume

- 1) Ibigo by'amashuri 8 byo mu karere kacu byahawe inkunga y'intebe 3 848. Shaka umubare w'intebe buri kigo cyabonye niba barazigabanye ku buryo bungana?
- 2) Gabanya ku buryo bungana amabati 2 598, abubatsi 6. Buri mwubatsi azahabwa amabati angahe?
- 3) Umucuruzi agemura amashu 4 764 mu bigo bya gisirikari 4. Ubwo buri kigo gihabwa amashu angahe niba buri kigo kibona amashu angana n'ay'ikindi kigo?
- 4) Uwamahoro acuruza imifuka ya sima 4 365 mu mezi 3. Shaka umubare w'imifuka ya sima acuruza mu kwezi kumwe niba acuruza sima zingana buri kwezi.

2.15 Isuzuma risoza umutwe wa 2

- 1) Andika 4 978 mu magambo
- 2) Shaka umubare wasesenguwe
 - a) b 7 c 5 h 4 j 9 =
 - b) b 9 h 3 c 6 j 7 =
- 3) Mutahure imibare yasesenguwe
 - a) $(4 \times 1\ 000) + (8 \times 100) + (7 \times 10) + (5 \times 1) =$
- 4) Andika umwanya w'imibarwa iciyeho akarongo
 - a) 3 586
 - b) 2 789
 - c) 4 362
 - d) 3 978
- 5) Gereranya ukoresheje <, > na =
 - a) 4 659 4 695
 - b) 4 871 4 867
- 6) Tondeka uhoreye ku mubare muto ujya ku munini
4 879, 4 897, 4 798, 4 789, 4 987, 4 978
- 7) Tondeka uhoreye ku munini ujya ku muto
3 687, 3 678, 3 768, 3 786, 3 867, 3 876
- 8) Shaka igiteranyo k'imibare ikurikira:
 - a) $3\ 154 + 1\ 659 =$
 - b) $3\ 876 + 1\ 112 =$
- 9) Shaka ikinyuranyo k'imibare ikurikira:
 - a) $4\ 587 - 3\ 267 =$
 - b) $3\ 967 - 2\ 563 =$
- 10) Shaka igikubo k'imibare ikurikira
 - a) 412
 - b) 105
 - c) 209
 - d) 124
 - e) 137
 - $\times 12$
 - $\times 47$
 - $\times 19$
 - $\times 35$
 - $\times 36$
- 11) Shaka ikigabanyo k'imibare ikurikira
 - a) $4\ 959 : 9 =$
 - b) $3\ 785 : 5 =$
 - c) $2\ 988 : 6 =$
- 12) Mu kagari ka Nyakabanda hatuye abagore 879, abagabo 839 n'abana 3 267. Shaka umubare w'abaturage bose.
- 13) Amahugurwa yitabiriwe n'abantu 4 789. Abagore bari 2 097. Shaka umubare w'abagabo.
- 14) Ku muganda buri rugo rwateye ibiti 18. Shaka umubare w'ibiti byatewe mu kagari kacu niba karimo ingo 276.
- 15) Gabanya ku buryo bungana imifuka y'isima 4 298 abacuruzi 7. Buri mucuruzi azahabwa imifuka ingahe?

Imibare kuva kuri 0 kugera ku 10 000



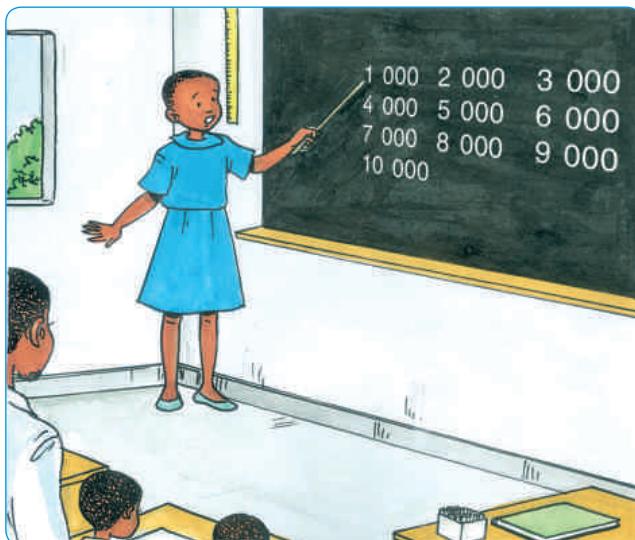
Gakire ni umuhinzi mworozi. Yeza imifuka myinshi y'ibishyimbo n'ibigori. Agurisha amata y'inka ze n'amagi. Ariko ntamenya ibyo yagurishije uko bingana. Wamufasha iki kugira ngo akore akazi ke neza kurushaho?



3.1 Gusoma imibare kuva kuri 0 kugera ku 10 000

Igikorwa cya 1

Mwitegerezze maze musome imibare iri ku ishusho.



Nsuzuma ngusuzume

Mukore imirongo ine imbere y'agakarito karimo udupapuro twanditseho imibare. Buri wese age atombora agapapuro kamwe asome umubare wanditseho aranguruye ijwi.

Imyitozo

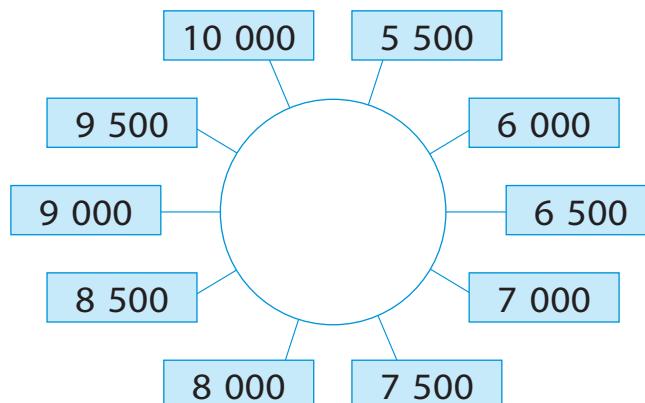


Mukoreshe amakarita y'imibare mukore imibare iri hagati ya 5 000 na 10 000 muyisomere abandi.

1	2	3	4	5
6	7	8	9	0

Igikorwa cya 2

Musome imibare iri kuri uru ruziga muhereye ku muto mujya ku munini.



Reka nisuzume



Fata amakarita yanditseho imibare ikurikira:

1	2	3	4	5	6	7	8	9	0
---	---	---	---	---	---	---	---	---	---

Ukore imibare iri hagati ya

- 1) 5 000 na 5 100
- 2) 5 500 na 5 600
- 3) 6 200 na 6 300
- 4) 7 400 na 7 500
- 5) 8 600 na 8 700
- 6) 9 800 na 9 900

Ikitonderwa: Buri mubarwa ukora inshuro imwe mu mubare

3.2 Kwandika imibare kuva kuri 0 kugera ku 10 000

Igikorwa

Mukoreshe amakarita y'imibare mwahawe mukore imibare 3 mwihihiyemo iri hagati ya 5 000 na 10 000. Muyandike mu magambo hanyuma muyisomere bagenzi banyu.

Ikitonderwa: Buri mubarwa ukora inshuro imwe mu mubare

1	2	3	4	5
6	7	8	9	0



Nsuzuma ngusuzume

Mukoreshe amakarita y'imibare mwahawe, mukore imibare 5 mwihihiyemo iri hagati ya 5 000 na 10 000, muyandike mu magambo hanyuma muyisomere abandi.

Ikitonderwa: Buri mubarwa ukora inshuro imwe mu mubare

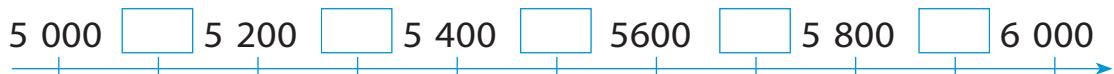
1	2	3	4	5
6	7	8	9	0

Imyitozo

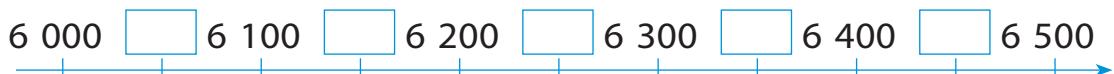


Mushake imibare ibura kuri uyu murongo w'ibara, muyisome munayandike mu magambo.

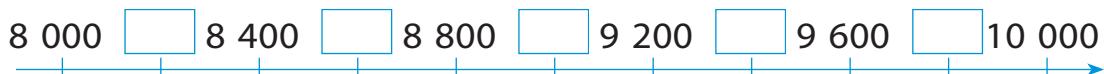
a)



b)



c)





Reka nisuzume



Shaka imibare wabajije hanyuma uyandike mu mibare no mu magambo: Imibare yose iri hagati ya

- | | | |
|-------------------|-------------------|-------------------|
| 1) 5 017 na 5 020 | 3) 7 050 na 7 055 | 5) 9 121 na 9 123 |
| 2) 6 031 na 6 033 | 4) 8 097 na 8 00 | 6) 9 266 na 9 269 |

Imyitozo



- 1) Andika mu mibare cyangwa mu magambo
 - a) 9 249:
 - b) Ibihumbi bitandatu magana inani na cumi n'ikenda:
- 2) Koresha amakarita y'imibare akurikira ukore nibura imibare 6 iri hagati ya 5 000 na 10 000 uyisome kandi uyandike mu mibare no mu magambo.

- 3) Uzuza uyu murongo w'ibara



- 4) Soma imibare iri muri iyi mbonerahamwe
 - a) Iyanditse mu magambo uyandike mu mibare
 - b) Iyanditse mu mibare uyandike mu magambo

a	9 794: ...	d	Ibihumbi bitandatu magana inani na gatanu: ...	g	6 732: ...
b	Ibihumbi birindwi magana atatu na gatanu: ...	e	5 936 ...	h	Ibihumbi umunani magana arindwi n'ikenda: ...
c	8 935: ...	f	Ibihumbi ikenda na magana atanu na mirongo itanu na karindwi: ...	i	8 719: ...

3.3 Gusesengura imibare kuva kuri 0 kugera ku 10 000

Igikorwa cya 1

- 1) Mwandike imibare ikurikira mu mbonerahamwe y'ibara mukurikiza urugero mwahawe.

Urugero:

Ibinyagihumbi (h)	Ibinyajana (j)	Ibinyacumi (c)	Ibinyabumwe (b)
5	4	6	5

- a) 5 465 c) 7 968 e) 9 539
b) 6 392 d) 8 974 f) 6 749
- 2) Mukoreshe imbonerahamwe y'ibara, mushyire umubare mu mwanya waho.
- a) $8 \ 654 =$ h _ j _ c _ b _
b) $6 \ 974 =$ c _ h _ b _ j _
c) $7 \ 935 =$ j _ b _ h _ c _
d) $5 \ 923 =$ b _ j _ c _ h _
e) $6 \ 179 =$ c _ j _ h _ b _
f) $9 \ 756 =$ j _ b _ h _ c _
- 3) Mwandike umubare wasesenguwemo ibinyagihumbi (h), ibinyajana (j), ibinyacumi (c) n'ibinyabumwe (b).
- a) $h \ 6 \ c \ 7 \ b \ 5 \ j \ 3 =$ d) $c \ 5 \ j \ 8 \ h \ 8 \ b \ 9 =$
b) $b \ 9 \ j \ 6 \ h \ 7 \ c \ 1 =$ e) $b \ 7 \ c \ 9 \ h \ 9 \ j \ 9 =$
c) $j \ 7 \ b \ 4 \ c \ 6 \ h \ 5 =$ f) $c \ 9 \ h \ 7 \ b \ 4 \ j \ 4 =$

Nsobanukiwe ko:

- Agaciro k'ibinyagihumbi (h) ari Umubare wabyo $\times 1 \ 000$
- Agaciro k'ibinyajana (j) ari Umubare wabyo $\times 100$
- Agaciro k'ibinyacumi (c) ari Umubare wabyo $\times 10$
- Agaciro k'ibinyabumwe (b) ari Umubare wabyo $\times 1$

Igikorwa cya 2

Musesengure imibare mo ibinyagihumbi (h), ibinyajana (j), ibinyacumi (c) n'ibinyabumwe (b) mukurikije urugero mwahawe.

Urugero:

- 1) $8\ 745 = 8\ 000 + 700 + 40 + 5$
 - 2) $9\ 537 = (9 \times 1\ 000) + (5 \times 100) + (3 \times 10) + (7 \times 1)$
 - 3) $7\ 853 = \text{Ibinyagihumbi } 7 + \text{Ibinyajana } 8 + \text{Ibinyacumi } 5 + \text{Ibinyabumwe } 3$
-
- | | | |
|---------------|---------------|---------------|
| a) $6\ 248 =$ | d) $7\ 649 =$ | g) $9\ 761 =$ |
| b) $5\ 879 =$ | e) $6\ 719 =$ | h) $7\ 367 =$ |
| c) $7\ 574 =$ | f) $8\ 659 =$ | i) $8\ 625 =$ |



Nsuzuma ngusuzume

Mutahure imibare yasesenguwe

- a) $(8 \times 1\ 000) + (5 \times 100) + (4 \times 10) + (7 \times 1) =$
- b) $9\ 000 + 800 + 70 + 6 =$
- c) $\text{Ibinyagihumbi } 7 + \text{Ibinyajana } 2 + \text{Ibinyacumi } 5 =$

Imyitoto

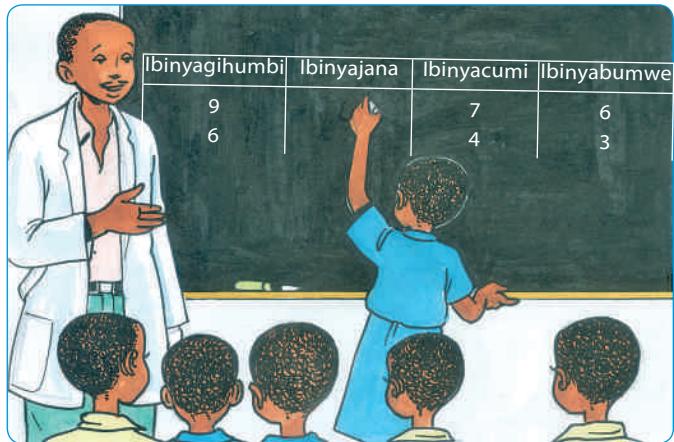


- 1) Koresha imbonerahamwe y'ibara uvuge umwanya w'imibarwa iciyeho akarongo
 - a) 9 465
 - b) 8 957
 - c) 7 237
 - d) 6 958
 - e) 5 871
 - f) 6 597
- 2) Shaka umubare wasesenguwemo ibinyagihumbi (h), ibinyajana (j), ibinyacumi (c) n'ibinyabumwe (b).
 - a) b 8 h 5 c 7 j 9 =
 - b) b 3 c 6 h 3 j 1 =
 - c) c 3 h 7 b 6 j 7 =
 - d) j 5 b 8 c 7 h 2 =
 - e) j 8 b 2 h 9 c 7 =
 - f) b 3 h 8 c 7 j 6 =
- 3) Sesengura imibare mo ibinyagihumbi (h), ibinyajana (j), ibinyacumi (c) n'ibinyabumwe (b) mu mibare ikurikira.
 - a) 8 567 =
 - b) 7 526 =
 - c) 9 615 =
 - d) 6 452 =
 - e) 6 435 =
 - f) 7 361 =

3.4 Kugreranya imibare 2 itarenze 10 000

Igikorwa cya 1

Mukurikize ibyo
mwitegereje ku
gishushanyo
n'urugero mwahawwe
mugreranye imibare
ikurikira.



Urugero:

Ibinyagihumbi (h)	Ibinyajana (j)	Ibinyacumi (c)	Ibinyabumwe (b)
9	8	7	6
6	5	4	3

6 543 Urutwa na 9 876 bikandikwa gutya: $6\ 543 < 9\ 876$

a) 7 456 8 336 b) 9 576 9 321

Nsobanukiwe ko:

Iyo ugereranya imibare ibiri wita kuri ibi bikurikira:

1. Uhera ku binyagihumbi ugana ku binyabumwe ukagenda ugereranya buri mubarwa.
2. Iyo ibinyagihumbi bingana uhita ugereranya ibinyajana
3. Iyo ibinyajana bingana uhita ugereranya ibinyacumi
4. Iyo ibinyacumi bingana ugereranya ibinyabumwe
5. Ibyo byose iyo birangiye wamenye umubare umunini n'umuto cyangwa wabonye ko imibare ingana ukoresha ibimenyetso by'igereranya ari byo: < (Birutwa), > (Biruta) na = (Bihwanye)

Igikorwa cya 2

Mutombore amakarita yanditseho imibare n'andi ariho ibimenyetso by'igereranya, mugereranye imibare mufite.

Urugero:

7 649

<

8 295

a) 7 649

6 930

7 850

<

>

=

b) 5 315

6 479

8 295

Igikorwa cya 3

Koresha <, > na = ugereranye

a) 9 723 □ 9 327

d) 8 617 □ 6 817

b) 6 472 □ 6 742

e) 5 241 □ 7 514

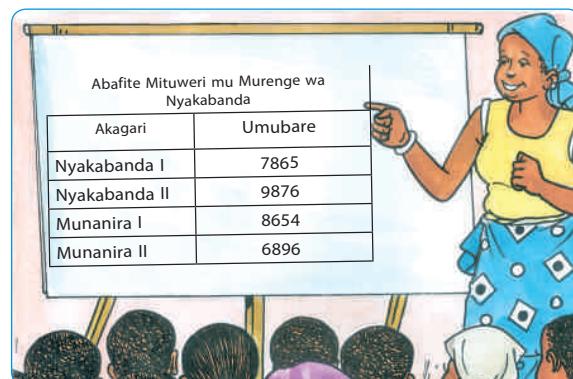
c) 7 215 □ 7 152

f) 6 072 □ 6 072



Nsuzuma ngusuzume

Mwitegerezze iyi shusho maze mugereranye imibare y'abaturage bafite ubwisungane mu kwivuza batuye mu tugari tugize Umurenge wa Nyakabanda.



- 1) Ibibazo
 - a) Ni akahe kagari gafite abaturage bake bafite ubwisungane mu kwivuza?
 - b) Ni akahe kagari gafite abaturage benshi bafite ubwisungane mu kwivuza?
- 2) Mukoresheje <, > na = mugereranye
 - a) Umubare w'abaturage bafite mituweri mu kagari ka Nyakabanda I n'abo mu kagari ka Nyakabanda II
 - b) Umubare w'abaturage bafite mituweri mu kagari ka Nyakabanda I n'abo mu kagari ka Munanira I

- c) Umubare w'abaturage bafite mituweri mu kagari ka Nyakabanda I n'abo mu kagari ka Munanira II
- d) Umubare w'abaturage bafite mituweri mu kagari ka Nyakabanda II n'abo mu kagari ka Munanira I
- e) Umubare w'abaturage bafite mituweri mu kagari ka Nyakabanda II n'abo mu kagari ka Munanira II.
- f) Umubare w'abaturage bafite mituweri mu kagari ka Nyakabanda I n'abo mu kagari ka Nyakabanda II
- g) Umubare w'abaturage bafite mituweri mu kagari ka Munanira I na Munanira II.



Reka nisuzume



Koresha <, > na = ugereranye abarwayi bivuriza mu bitaro byitiriwe umwami Fayisali buri cyumweru.

Abagabo	Abagore	Abana
1 678	2 087	6 167

- a) Umubare w'abagore n'uwan'abagabo bahivuriza buri munsi
- b) Umubare w'abagore n'uwan'abana bahivuriza buri munsi
- c) Umubare w'abagabo n'uwan'abana bahivuriza buri munsi

Imyitozo



Mukoreshe <, > na = mugereranye imibare ikurikira

- a) 8 459 8 459
- b) 7 384 7 249
- c) 9 628 9 657
- d) 5 493 5 234
- e) 6 734 6 734
- f) 7 835 8 435
- g) 5 919 9 919
- h) 6 828 8 821
- i) 7 732 7 732
- j) 8 643 6 643

3.5 Gutondeka imibare kuva ku 2 000 kugera ku 10 000

A. Gutondeka imibare kuva ku muto ujya ku munini

Igikorwa cya 1

Mukoreshe amakarita mwigane ibiri gukorwa kuri iyi shusho mutondeke imibare muhereye ku muto mujya ku munini.



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

Nsobanukiwe ko:

- Iyo utondeka imibare uva ku muto ujya ku munini ukoresha imbonerahamwe y'ibara.
- Ukabanza ukagereranya ibinyagihumbi byose, ugakurikizaho ibinyajana, ibinyacumi kugeza ubonye uko imibare yose ikurikirana ukayitondeka uhoreye ku mubare muto ujya ku munini.

Igikorwa cya 2

Tondeka iyi mibare uhoreye ku muto ujya ku munini ukurikije urugero wahawe.

Urugero: 6 572, 7 852, 5 792, 7 562

Ibinyagihumbi (h)	Ibinyajana (j)	Ibinyacumi (c)	Ibinyabumwe (b)
5	7	9	2
6	5	7	2
7	5	6	2
7	8	5	2

Igisubizo: 5 792, 6 572, 7 562, 7 852

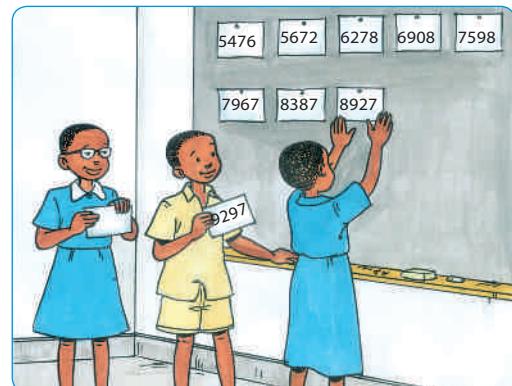
- 1) 7 804, 6 218, 5 386 2) 7 358, 6 804, 5 748

B. Gutondeka imibare kuva ku munini ujya ku muto

Igikorwa cya 1

Mukoreshe amakarita mwigana ibiri gukorwa ku ishusho mutondeke imibare muhereye ku munini mujya ku muto.

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



Nsobanukiwe ko:

Iyo utondeka imibare uva ku munini ujya ku muto ukoresha imbonerahamwe y'ibara ukabanza ukagereranya ibinyagihumbi, ugakurikizaho ibinyajana, ibinyacumi kugeza ubonye uko imibare yose ikurikirana, ukayitondeka uva ku munini ujya ku muto.

Igikorwa cya 2

Tondeka iyi mibare uhoreye ku mubare munini ujya ku muto ukurikije urugero wahawe.

Urugero: 9 126, 8 965, 5 869, 6 739, 7 629, 8 469

Ibinyagihumbi (h)	Ibinyajana (j)	Ibinyacumi (c)	Ibinyabumwe (b)
5	7	3	5
5	6	4	7
4	5	2	6
4	4	5	2

Igisubizo: 9 126 > 8 965 > 8 469 > 7 629 > 6 739 > 5 869

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



Reka nisuzume



Tondeka uhoreye ku mubare munini ujya ku muto

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

Imyitozo



- 1) Tondeka uhoreye ku mubare muto ujya ku munini
a) 9 876, 7 869, 8 687
b) 5 678, 7 856, 7 658
c) 7 654, 5 746, 6 475
d) 7 896, 7 689, 7 869
- 2) Tondeka uhoreye ku mubare munini ujya ku muto
a) 5 923, 9 325, 5 392
b) 6 541, 5 146, 6 154
c) 6 789, 7 698, 9 876
d) 8 279, 8 972, 8 729

3.6 Guteranya imibare igiteranyo cyayo kitarenze 10 000

A. Iteranya ritabitsa

Igikorwa

Kurikiza urugero wahawe, uteranye imibare ikurikira:

Urugero: $5\ 432 + 4\ 567 = 9\ 999$

Ibinyagihumbi (h)	Ibinyajana (j)	Ibinyacumi (c)	Ibinyabumwe (b)
5	4	3	2
+ 4	5	6	7
9	9	9	9

a) $6\ 543$ b) $4\ 567$ c) $5\ 123$ d) $9\ 217$ e) $8\ 012$
 $\underline{+ 2\ 310}$ $\underline{+ 3\ 421}$ $\underline{+ 3\ 754}$ $\underline{+ 682}$ $\underline{+ 987}$

Nsobanukiwe ko:

Iyo uteranya imibare ukora ibi bikurikira:

- Kwandika imibare mu mbonerahamwe y'ibara
- Gukoresha utubarisho ugahera ku binyabumwe uteranya ugaheruka ibinyagihumbi.
- Kwandukura igiteranyo.



Reka nisuzume



Muteranye imibare ikurikira:

a) $4\ 125 + 3\ 873 =$ c) $5\ 234 + 4\ 543 =$ e) $5\ 715 + 4\ 054 =$
b) $3\ 756 + 132 =$ d) $3\ 256 + 732 =$ f) $4\ 650 + 4\ 239 =$



Nsuzuma ngusuzume

Mwifashishe amakarita y'imibare n'ibimenyetso byo $+$ na $=$

- A) **4 567** **5 678** **6 123** **7 345** **8 012** **9 456** **4 567**
B) **5 231** **4 321** **2 874** **1 643** **1 986** **442** **4 302**
C) **9 898** **8 997** **9 798** **8 988** **9 999** **9 998** **8 869**

- Mufate ikarita imwe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cyo +
- Mukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cya =
- Muhitemo igisubizo mu makarita yo muri C

Imyitozo



a) $5643 + 256 =$ c) $4572 + 4316 =$
 b) $7215 + 2784 =$ d) $4567 + 421 =$

B. Iteranya ribitsa

Igikorwa

Kurikiza urugero wahawe uteranye imibare ikurikira:

Urugero: $7\ 698 + 1\ 479 = 9\ 177$

Ibinyagihumbi (h)	Ibinyajana (j)	Ibinyacumi (c)	Ibinyabumwe (b)
1	1	1	
7	6	9	8
+ 1	4	7	9
9	1	7	7

a) $4\ 989$ b) $5\ 345$ c) $6\ 578$ d) $8\ 123$ e) $7\ 145$
 $\underline{+ 3\ 465}$ $\underline{+ 2\ 987}$ $\underline{+ 2\ 456}$ $\underline{+ 1\ 098}$ $\underline{+ 1\ 879}$

Nsobanukiwe ko:

Iyo uteranya imibare isaba kubitsa ukora ibi bikurikira:

1. Guca imbonerahamwe y'ibara ukayandikamo imibare
2. Gukoresha utubarisho ugahera ku binyabumwe uteranya
3. Iyo igiteranyo k'ibinyabumwe kigizwe n'imibarwa 2 wandika ikinyabumwe k'icyo giteranyo maze ukabitsa ikinyacumi ku binyacumi, ukabiteranya, ugakomeza utyo no ku yindi myanya, ukandukura igiteranyo



Nsuzuma ngusuzume

Mwifashishe amakarita yanditseho imibare n'andi ariho
ibimenyetso byo $+$ na $=$

- A) 3 294 6 095 5 324 4 852 2 698 7 689 8 437
- B) 5 789 2 987 3 678 4 897 6 574 1 567 1 389
- C) 9 826 9 272 9 083 9 749 9 256 9 082 9 002

- Mufate ikarita imwe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cyo $+$
- Mukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cya $=$
- Muhitemo igisubizo mu makarita yo muri C



Reka nisuzume



Teranya imibare ikurikira

- | | |
|------------------------|------------------------|
| a) $1\ 943 + 7\ 689 =$ | d) $4\ 239 + 4\ 876 =$ |
| b) $2\ 976 + 6\ 387 =$ | e) $5\ 795 + 3\ 498 =$ |
| c) $3\ 987 + 5\ 679 =$ | f) $6\ 467 + 2\ 944 =$ |

Imyitozo



a) $7\ 568$	b) $8\ 532$	c) $9\ 274$	d) $6\ 765$	e) $4\ 723$
$+ 1\ 928$	$+ 987$	$+ 389$	$+ 2\ 579$	$+ 5\ 187$

3.7 Amahurizo yo guteranya imibare igiteranyo cyayo kitarenze 10 000

Urugero:

Ishyirahamwe ryateye ingemwe z'amashu 4 567 ku wa mbere bukeye bwaho ku wa kabiri ritera izindi 3 978. Ubwo ryateye ingemwe zingahe muri iyo minsi uko ari ibiri?

Ibyo mfite mu ihurizo	Ibyo mbazwa	Inzira n'igisubizo
Umubare w'ingemwe zatewe ku wa mbere ni 4 567	Umubare w'ingemwe zatewe mu minsi ibiri	Umubare w'ingemwe zatewe mu minsi ibiri = 4 567 + 3 978 = Ingemwe 8 545
Umubare w'ingemwe zatewe kuwa kabiri ni 3 978		$ \begin{array}{r} 1 \ 11 \\ 4 \ 567 \\ + 3 \ 978 \\ \hline 8 \ 545 \end{array} $

Nsobanukiwe ko:

Iyo ugiye gukora ihurizo ryo guteranya imibare ukora ibi bikurikira:

1. Kuvana mu ihurizo ibyo baguhaye
2. Kuvana mu ihurizo ibyo bakubaza
3. Gutondeka ibyo wahawe impagarike ukabiteranya.



Nsuzuma ngusuzume

- 1) Uyu mwaka mu Karere ka Huye hakingiwe abana b'abahungu 5 321 n'ab'abakobwa 3 789. Ubwo hakingiwe abana bangahe?
- 2) Umwaka ushize ishyirahamwe rihinga ikawa ryateye ibiti 3 657 naho uyu mwaka rimaze gutera ibiti 5 794. Ubwo iri shyirahamwe rifite ibiti by'ikawa bingahe byose hamwe?
- 3) Mu Karere hatanzwe inka 3 576 muri gahunda ya Girinka Munyarwanda naho mu kandi Karere hatangwa 5 879. Utwo turere twombi twahawe inka zingahe?
- 4) Muri kaminuza higa abahungu 4653 n'abakobwa 4 978. Iryo shuri ryigamo abanyeshuri bangahe?



Reka nisuzume



- 1) Umupira w'amaguru wahije Akarere ka Gasabo n'Akarere ka Kicukiro witabiriwe n'abafana b'abagabo 7 543 n'ab'abagore 1 978. Shaka igiteranyo cy'abafana bitabiriye uwo mukino.
- 2) Mu ibarura ryashize basanze Umurenge wa Kamurehe urimo ingo 4 987 naho uwa Kabuye urimo ingo 4 678. Iyo mirenge yombi irimo ingo zingahe?
- 3) Ikigo gitubura ibitabo cyahaye Akarere ka Karongi ibitabo by'imibare 5 423 naho Akarere ka Ngororero gahabwa 3 798. Utwo turere twombi twahawe ibitabo bingahe?
- 4) Uruganda rukora amasabune rwakoze amakarito 3 456 ukwezi gushize naho uku kwezi rwakoze amakarito 4 649. Shaka umubare w'amakarito rufite mu bubiko.

3.8 Gukuramo imibare itarenze 10 000

A. Ikuramo ridatira ry'imibare itarenze 10 000

Igikorwa

Mukuremo imibare ikurikira mukurikije urugero mwahawwe:

Urugero: $6\ 789 - 5\ 676 = 1\ 113$

Ibinyagihumbi (h)	Ibinyajana (j)	Ibinyacumi (c)	Ibinyabumwe (b)
6	7	8	9
- 5	6	7	6
1	1	1	3

- a) $8\ 569$ b) $9\ 738$ c) $7\ 686$ d) $8\ 679$ e) 6974
 $- 5\ 417$ $- 6\ 315$ $- 5\ 452$ $- 7\ 543$ $- 6432$



Nsuzuma ngusuzume

Mwifashishe amakarita yanditseho imibare n'andi ariho
ibimenyetso byo $-$ na $=$

- A) 9 876 8 567 7 456 6 345 9 234 8 456 7 986
 B) 7 645 5 435 4 142 4 203 6 023 5 031 3 654
 C) 2 142 4 332 3 425 2 231 3 314 3 211 3 132

- Mufate ikarita imwe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cyo $-$
- Mukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cya $=$
- Muhitemo igisubizo mu makarita yo muri C

Nsobanukiwe ko:

Iyo ukuramo imibare ukora ibi bikurikira:

1. Guca imbonerahamwe y'ibara ukandikamo imibare
2. Gukoresha utubarisho ugahera ku binyabumwe ukuramo ugaherukira ku binyagihumbi.
3. Kwandukura ikinyuranyo ubonye.



Reka nisuzume



Kuramo imibare ikurikira

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

Imyitozo



- | | | | |
|----------------|----------------|----------------|----------------|
| 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> |

B. Ikuramo ritira ry'imibare itarenze 10 000

Igikorwa

Mukore ibibazo bikurikira mukurikije urugero mwahawe;

Urugero: $9\ 531 - 6\ 789 = 2\ 742$

Ibinyagihumbi (h)	Ibinyajana (j)	Ibinyacumi (c)	Ibinyabumwe (b)
8	14	12	11
9	4	2	
- 6	5	3	1
2	7	8	9
		4	2

a) $7\ 234$ b) $6\ 013$ c) $9\ 543$ d) $8\ 250$ e) $5\ 123$
 $\underline{- 5\ 897}$ $\underline{- 5\ 739}$ $\underline{- 8\ 796}$ $\underline{- 6\ 592}$ $\underline{- 2\ 768}$



Nsuzuma ngusuzume

Mwifashishe amakarita yanditseho imibare n'andi ariho
ibimenyetso byo $-$ na $=$

- A) 5 321 6 024 7 431 8 143 9 012 6 503 8 432
- B) 2 789 4 658 5 865 6 759 8 945 3 967 6 579
- C) 2 536 1 853 1 384 1 366 2 532 67 1 566

- Mufate ikarita imwe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cyo $-$
- Mukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cya $=$
- Muhitemo igisubizo mu makarita yo muri C

Nsobanukiwe ko:

Iyo ukuramo imibare isaba gutira ukora ibi bikurikira:

1. Guca imbonerahamwe y'ibara ukandikamo imibare, umunini hejuru y'umuto.
2. Gukoresha utubarisho ugahera ku binyabumwe ukuramo.
3. Iyo ibinyabumwe byo gukurwamo birutwa n'ibinyabumwe bikurwamo utira 1 ringana n'ibinyabumwe 10 ku binyacumi by'umubare ukurwamo ukabyongera ku binyabumwe wari usanganwe maze ugakuramo ukandika ikinyuranyo.
4. Ukomeza utyo ku yindi myanya ikurikiye kugeza urangije.



Reka nisuzume



Kuramo imibare ikurikira

- | | |
|------------------------|------------------------|
| a) $9\ 013 - 7\ 457 =$ | d) $6\ 543 - 4\ 675 =$ |
| b) $8\ 234 - 6\ 957 =$ | e) $5\ 376 - 389 =$ |
| c) $7\ 432 - 5\ 678 =$ | f) $5\ 021 - 2\ 658 =$ |

Imyitozo



- | | |
|------------------------|------------------------|
| a) $6\ 120 - 3\ 249 =$ | c) $8\ 105 - 5\ 258 =$ |
| b) $7\ 432 - 4\ 567 =$ | d) $9\ 043 - 6\ 398 =$ |

3.9 Amahurizo yo gukuramo imibare itarenze 10 000

Urugero

Intara yacu yateguye amarushanwa yo kwandika imivugo hitabira abanyeshuri 9 768. Niba harasezerewe 8 989 mu majonjora, shaka umubare w'abashoboye gukomeza amarushanwa.

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Abanyeshuri bose ni 9 768	Abakomeje irushanwa	Abakomeje irushanwa ni 9 768 – 8 989 = 779
Abasezerewe ni 8 989		$ \begin{array}{r} 8 \ 16 \ 15 \ 18 \\ - 9 \ \cancel{1} \ \cancel{6} \ 8 \\ \hline 8 \ 9 \ 8 \ 9 \\ - \cancel{8} \ 7 \ 7 \ 9 \end{array} $



Nsuzuma ngusuzume

- 1) Mu nkambi y'impunzi irimo impunzi 9 732. Muri zo 7 986 zahawe imfashanyo n'abagiraneza. Shaka umubare w'impunzi zitabonye imfashanyo.
- 2) Mu ishuri rikuru ry'u Rwanda higa abanyeshuri 9 321. Muri bo 5 867 biga mu ishami rya siyansi. Shaka umubare w'abanyeshuri batiga siyansi.
- 3) Akagari gatuwe n'ingo 6 830. Muri zo 5 987 zabonye inzitiramibу. Shaka umubare w'ingo zitabonye inzitiramibу.

Nsobanukiwe ko:

Iyo ugiye gukora ihurizo ririmo gukuramo imibare ukora ibi bikurikira:

1. Kuvana mu ihurizo ibyo baguhaye
2. Kuvana mu ihurizo ibyo bakubaza
3. Kwandika umubare munini wahawe mu ihurizo ukawuvanamo umubare muto, ukandika ikinyuranyo.



Reka nisuzume



- 1) Gisa yasaruye amashu 7 120, agurisha 6 987 muri yo. Yasigaranye amashu angahe?

- 2) Umwaka ushize mu murenge wacu habarurirwaga abana 9 123. Muri bo 879 ntabwo bakingiwe inkingo zose. Shaka umubare w'abana bakingiwe inkingo zose.
- 3) Abantu 7 345 biyamamarije kuba abagenzuzi mu Karere, 789 muri bo baratorwa. Shaka umubare w'abataratowe.
- 4) Mu ngemwe z'ibiti 9 351 zatewe mu murenge wacu umwaka ushize hameze ingemwe 7 984 gusa. Shaka umubare w'ingemwe zitameze.

Imyitozo



Soma neza imbonerahamwe ikurikira maze ukore neza ibyo wabajijwe:

	1	2	3
A	5 674	6 987	7 486
B	3 789	2 678	1 947
C	4 098	1 979	1 287

- 1) Shaka igiteranyo k'imibare ikurikira:
 - a) $A\ 1 + B\ 1 =$
 - b) $A\ 1 + C\ 1 =$
 - c) $A\ 2 + B\ 2 =$
 - d) $A\ 2 + C\ 2 =$
 - e) $A\ 3 + B\ 3 =$
 - f) $A\ 3 + C\ 3 =$
- 2) Shaka ikinyuranyo k'imibare ikurikira
 - a) $A\ 1 - B\ 1 =$
 - b) $A\ 1 - C\ 1 =$
 - c) $C\ 1 - B\ 1 =$
 - d) $A\ 2 - B\ 2 =$
 - e) $A\ 2 - C\ 2 =$
 - f) $B\ 2 - C\ 2 =$

3.10 Ikuba ry'umubare w'imibarwa 3 nundi w'imibarwa 2 igikubo kitarenze 10 000

Igikorwa

Mukore imyitozo ikurikira mukurikije urugero mwahawe.

Urugero: $325 \times 29 = 9\,425$

Ibinyagihumbi	Ibinyajana	Ibinyacumi	Ibinyabumwe
1	3	2	5
2	9	2	5
+ 6	5	0	
9	4	2	5

Ndakubisha 9

- $9 \times 5 = 45$ nandika 5 nkabika 4
- $9 \times 2 = 18$ nongeraho 2 nabitse bikaba 22 nkandika 2 nkabika 2
- $9 \times 3 = 27$ nkongeraho 2 nabitse bikaba 29 nkandika 9 mu binyajana na 2 mu binyagihumbi.

Ndakubisha 2

- $2 \times 5 = 10$ nandike 0 mu binyacumi mbike 1
- $2 \times 2 = 4$ nkongeraho 1 nabitse bikaba 5
- $2 \times 3 = 6$ Ndateranya ibikubo byombi 2 925 + 650 = 9 425

a) 295	b) 198	c) 356	d) 139
$\times 15$	$\times 19$	$\times 12$	$\times 34$
e) 108			
			$\times 45$
f) 265	g) 425	h) 444	i) 502
$\times 35$	$\times 16$	$\times 22$	$\times 22$
j) 636			
			$\times 13$

Nsobanukiwe ko:

Iyo ukuba umubare w'imibarwa 3 n'undi w'imibarwa 2 ukora ibi bikurikira:

1. Kwandika imibare mu mbonerahamwe y'ibara
2. Gukubisha ikinyabumwe kugeza urangije imibarwa yose
3. Gukubisha ikinyacumi kugeza urangije imibarwa yose
Ukandika igikubo uhoreye mu mwanya w'ibinyacumi ugana ibumoso.
4. Guteranya ibikubo byose.



Nsuzuma ngusuzume

Ifashishe amakarita yanditseho imibare n'andi ariho
ibimenyetso byo X na =

- A) 378 529 638 439 297 907 412
- B) 25 18 15 21 29 11 24
- C) 9 977 9 219 9 888 9 450 8 613 9 522 9 570

- Ufate ikarita imwe muri A
- Ukurikizeho ikarita yanditseho ikimenyetso cyo X
- Ukurikizeho ikarita yo muri B iteganye n'iyo wafashe muri A
- Ukurikizeho ikarita yanditseho ikimenyetso cya =
- Uhitemo igisubizo mu makarita yo muri C



Reka nisuzume



Shaka igikubo k'iyi mibare

- a) 789×12 b) 697×13 c) 874×11 d) 527×15 e) 472×16

Imyitozo



Soma imbonerahamwe, ukore neza ibyo wabajijwe.

	1	2	3
A	567	356	489
B	17	28	15
C	19	16	25

Shaka igikubo k'imibare ikurikira

- a) $A \ 1 \times B \ 1 =$ c) $A \ 2 \times B \ 2 =$ e) $A \ 3 \times B \ 3 =$
 b) $A \ 1 \times B \ 3 =$ d) $A \ 2 \times C \ 2 =$ f) $B \ 2 \times C \ 3 =$

3.11 Amahurizo yo gukuba umubare w'imibarwa 3 n'undi w'imibarwa 2 igikubo kitarenze 10 000

Urugero

Umurima w'ikawa urimo imirongo 357 kandi kuri buri murongo hariho ibiti 28. Shaka umubare w'ibiti by'ikawa biteye muri uwo murima.

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Imirongo y'ikawa ni 357 Ibiti biri kuri buri murongo ni 28	Umubare w'ibiti bya kawa biteye muri uwo murima	Umubare w'ibiti bya kawa biteye muri uwo murima: $357 \times 28 = 9\ 996$ $ \begin{array}{r} 357 \\ \times 28 \\ \hline 2\ 856 \\ + 714 \\ \hline 9\ 996 \end{array} $



Nsuzuma ngusuzume

- 1) Leta y'u Rwanda yoroje inka abaturage bo mu mirenge 416. Ubwo Leta y'u Rwanda yatanze inka zingahe niba buri Murenge warahawe inka 23?

- 2) Mu cyumba k'inama k'Intara harimo intewe 798 kandi kuri buri ntebe hicara abantu 12. Muri icyo cyumba hajyamo abantu bangahe?
- 3) Shaka umubare w'abanyeshuri bashyizwe mu bigo 29 niba muri buri kigo harashyizwemo abanyeshuri 287.
- 4) Ishyirahamwe ryorora inkoko rifite inkoko 479 kandi buri nkoko ituraga imishwi 18 buri mwaka. Ryunguka imishwi ingahe buri mwaka?

Nsobanukiwe ko:

Iyo ugiye gukora ihurizo ririmo gukuba imibare ukora ibi bikurikira:

1. Kuvana ibyo nahawe mu ihurizo
2. Kuvana mu ihurizo ibyo mbazwa
3. Kwandika imibare wahawe mu ihurizo buhagazi ukayikuba hanyuma ukandika igikubo ari cyo gisubizo.



Reka nisuzume



- 1) Ishyirahamwe rifite inkoko 278. Iryo shyirahamwe ribona amagi angahe niba buri nkoko itera amagi 29 buri kwezi?
- 2) Shaka umubare w'amakarito y'amazi akorwa n'uruganda mu minsi 27 niba urwo ruganda rukora amakarito 367 buri munsi.
- 3) Uwamahoro yahinze amashu ku mirongo 549. Shaka umubare w'amashu yahinze niba kuri buri murongo yarahateye amashu 18.
- 4) Mu isoko rya Kimironko harimo ameza yo gacururizaho 589. Shaka umubare w'abacuruzi bacururiza muri iryo soko niba kuri buri meza hacururizaho abacuruzi 15.

3.12 Ikuba ry'imibare na 100 na 1 000 igikubo kitarenze 10 000

Igikorwa cya 1

Itegereze ingero usobanure ibyakozwe.

Urugero

1) $75 \times 100 = 7\,500$ 2) $5 \times 1\,000 = 5\,000$

Igikorwa cya 2

Mukube iyi mibare.

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

Igikorwa cya 3

- Muhagarare imbere y'utudobo tubiri: Kamwe karimo amakarita y'imibare itandukanye.
- Akandi karimo amakarita yanditseho ibikubo 10 bitandukanye.
- Buri wese age agenda akure umubare mu kadobo ka mbere maze mugenzi we ashake igikubo cyawo na 100 cyangwa na 1 000 mu kadobo ka kabiri.

Nsobanukiwe ko:

- Iyo ukuba umubare na 100 wandika uwo mubare ukongeraho amazeru abiri (00)
- Iyo ukuba umubare na 1 000 wandika uwo mubare ukongeraho amazeru atatu (000)



Reka nisuzume



Murushanwe gushaka byihuse igikubo k'iyi mibare:

a) $99 \times 100 =$ d) $78 \times 100 =$
b) $7 \times 1\,000 =$ e) $57 \times 100 =$
c) $6 \times 1\,000 =$ f) $9 \times 1\,000 =$

Imyitozo



Uzurisha 100 cyangwa 1 000

- a) $\square \times 3 = 3\ 000$
b) $69 \times \square = 6\ 900$
c) $8 \times \square = 8\ 000$
d) $87 \times \square = 8\ 700$

- e) $\square \times 7 = 7\ 000$
f) $76 \times \square = 7\ 600$
g) $6 \times \square = 6\ 000$
h) $5 \times \square = 5\ 000$

3.13 Igabanya ridasagura ry'umubare w'imibarwa 4 n'umubare w'umubarwa 1

Igikorwa

Gabanya imibare ikurikira ukurikije urugero wahawe:

Urugero

a) $9\ 819 : 9 = 1\ 091$

$$\begin{array}{r} 9819 \\ - 9 \\ \hline 08 \\ - 0 \\ \hline 81 \\ - 81 \\ \hline 00 \\ \quad \downarrow \\ \quad 9 \\ - 9 \\ \hline 0 \end{array}$$

b) $8\ 712 : 8 = 1\ 089$

$$\begin{array}{r} 8712 \\ - 8 \\ \hline 07 \\ - 0 \\ \hline 71 \\ - 64 \\ \hline 072 \\ - 72 \\ \hline 00 \end{array}$$

1) $7\ 496 : 8 =$

2) $6\ 327 : 9 =$

3) $7\ 049 : 7 =$

Nsobanukiwe ko:

Iyo ugabanya imibare ukora ibi bikurikira:

1. Kwandika ikigabanya n'ikigabanya mu mahembe
2. Guhera ku binyagihumbi ugabanya, ugakurikizaho ibinyajana, ibinyacumi, ugaheruka ibinyabumwe.
3. Iyo ibinyagihumbi ari bike ku kigabanya ufatira hamwe ibinyagihumbi n'ibinyajana.
4. Iyo umubare ukurikiyeho ari muto ku kigabanya ushyira zero (0) mu kigabanyo ugakuramo hanyuma ukamanura ibinyabumwe.



Nsuzuma ngusuzume

Mwifashishe amakarita yanditseho imibare n'andi ariho
ibimenyetso byo : na =

- A) 8 984 6 576 8 952 8 172 7 985 8 491 9 879
- B) 8 4 6 9 5 7 3
- C) 908 1 213 1 597 1 492 1 644 3 293 1 123

- Mufate ikarita imwe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cyo :
- Mukurikizeho iyo muri B iteganye n'iyo wafashe muri A
- Mukurikizeho ikarita yanditseho ikimenyetso cya =
- Muhitemo igisubizo mu makarita yo muri C



Reka nisuzume



Shaka ibigabanyo by'imibare ikurikira:

- a) $9 549 : 9 =$ c) $7 952 : 7 =$ e) $6 585 : 5 =$
b) $8 728 : 8 =$ d) $6 906 : 6 =$ f) $8 976 : 4 =$

Imyitozo



Soma neza imbonerahamwe, ushake ibigabanyo wabajijwe.

	1	2	3	4	5	6	7	8
A	9 878	7 839	5 692	8 965	7 656	6 398	7 296	9 963
B	2	3	4	5	6	7	8	9

- a) A 1 na B 1 c) A 3 na B 3 e) A 5 na B 5
 b) A 2 na B 2 d) A 4 na B 4 f) A 6 na B 6

3.14 Amahurizo yo kugabanya

Urugero:

Gabanya ku buryo bungana ibitabo 9 872 ibigo by'amashuri 8. Buri kigo kizahabwa ibitabo bingahe?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Umubare w'ibitabo byose ni 9 872 Umubare w'ibigo by'amashuri ni 8	Umubare w'ibitabo buri kigo kizahabwa	Umubare w'ibitabo buri kigo kizahabwa ni 9 872: 8 = 1 234



Nsuzuma ngusuzume

- 1) Uturere 7 twagabiwe n'umuryango nterankunga inka 9 891. Buri karere kagabiwe inka zingahe niba twarazigabanye ku buryo bungana?
- 2) Komisiyo y'amatora yagabanyije ku buryo bungana impapuro z'itora 7 992 ibiro by'itora 8. Buri biro by'itora byahawe impapuro z'itora zingahe?
- 3) Shyira amakayi 5 490 mu bikarito 9 ku buryo ibikarito byose bijyamo umubare ungana w'ibitabo. Buri gikarito uzagishyiramo amakayi angahe?

- 4) Kaneza yabumbye amatafari 9 896 ashaka kubakisha inzu 4 zingana. Shaka umubare w'amatafari azajya kuri buri nzu.

Nsobanukiwe ko:

Iyo ukora ihurizo ririmo kugabanya imibare ukora ibi:

1. Kuvana mu ihurizo ibyo baguhaye
2. Kuvana mu ihurizo ibyo bakubaza
3. Kwandika imibare wahawe mu ihurizo mu mahembe maze ukayigabanya hanyuma ukandika ikigabanyo.



Reka nisuzume



- 1) Ihogoza yasaruye inanasi 5 496 bazipakira imodoka 8 ku buryo bungana. Buri modoka yatwaye inanasi zingahe?
- 2) Abanyeshuri 7 895 basoje ikiciro rusange bagize amanota meza boherejwe ku buryo bungana mu bigo by'amashuri 5. Buri kigo cyoherejwemo abanyeshuri bangahe?
- 3) Saranganya ku buryo bungana imifuka 8 793 y'ifumbire mvaruganda mu turere 9. Buri karere kazahabwa imifuka ingahe?
- 4) Gabanya ku buryo bungana mudasobwa 6 797, uturere 7. Shaka umubare wa mudasobwa buri karere kazahabwa.

Imyitozo



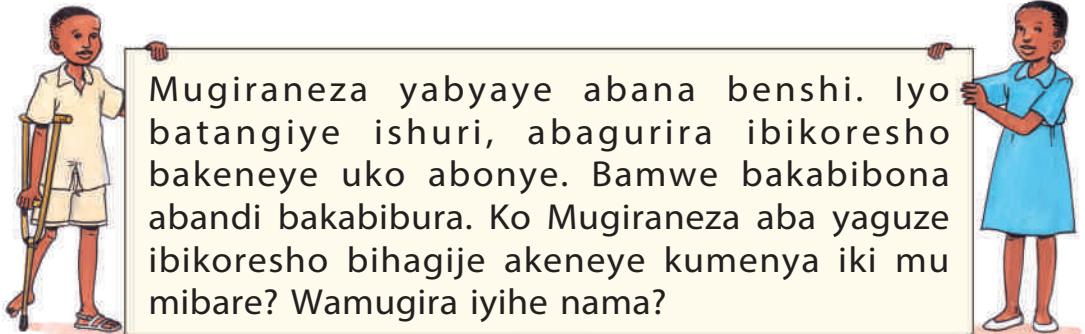
- 1) Kagabo yacuruje amacupa 8 750 y'amavuta mu minsi 5. Buri munsi yacuruzaga amacupa angahe?
- 2) Saranganya ku buryo bungana ingemwe z'imbuto 9 400 mu midugudu 4. Buri mudugudu uzabona ingemwe zingahe?

3.15 Isuzuma risoza umutwe wa 3

- 1) Andika 9 678 mu magambo
- 2) Shaka umubare wasesenguwe
 - a) b 8 c 9 h 7 j 6 =
 - b) b 5 h 8 c 4 j 3 =
- 3) Tahura imibare yasesenguwe: $5\ 000 + 900 + 60 + 8 =$
- 4) Vuga umwanya w'imibarwa iciyeho akarongo
 - a) 8 759
 - b) 7 645
 - c) 6 975
 - d) 9 542
- 5) Gereranya ukoreshheje <, > na =
 - a) 8 189 8 819
 - c) 7 689 7 689
 - b) 6 583 6 538
 - d) 9 587 9 578
- 6) Tondeka iyi mibare uhoreye ku muto ujya ku munini
7 365, 7 356, 5 746, 4 784, 8 497, 6 479
- 7) Tondeka uhoreye ku munini ujya ku muto
5 708, 6 718, 4 738, 9 786, 6 827, 8 710
- 8) Shaka igiteranyo k'imibare ikurikira:
 - a) $6\ 574 + 2\ 695 =$
 - b) $7\ 865 + 1\ 879 =$
- 9) Shaka ikinyuranyo k'imibare ikurikira:
 - a) $7\ 856 - 5\ 976 =$
 - b) $8\ 761 - 6\ 819 =$
- 10) Shaka igikubo k'imibare ikurikira
 - a) 198
 - b) 265
 - c) 349
 - d) 573
 - e) 497

$\times 49$ $\times 37$ $\times 28$ $\times 16$ $\times 17$
- 11) Shaka ikigabanyo k'imibare ikurikira
 - a) $7\ 985 : 5 =$
 - b) $8\ 526 : 6 =$
- 12) Kaneza yaranguye imifuka 8 759 agurishaho 5 784.
Yasigaranye imifuka ingahe?
- 13) Mu isomero ry'ishuri ryacu harimo ibitabo 968 by'imibare.
Niba abanyeshuri baratiye ibitabo 378 ubwo mu isomero
hasigayemo ibitabo bingahe?
- 14) Niba ikamyo imwe itwara imifuka ya sima 300, ubwo
amakamyo 24 yatwara imifuka ingahe ya sima?
- 15) Gabanyiriza ku buryo bungana imyembe 981 mu bitebo
9. Buri gitebo kizajyamo imyembe ingahe?

Imigabane ifite ikita kitarenze 10

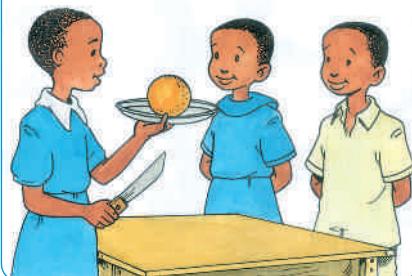


4.1 Gusoma no kwandika imigabane itarenze ikizima kandi ikita kitarenze 10

Igikorwa cya 1

Mwitegereze ibyakozwe ku ishusho, mubiganireho, mubyandike.

a



b



c



d



e



Nsobanukiwe ko:

- Umugabane ari igice k'ikizima kimwe.
- Buri mugabane uba ugizwe n'ibice bibiri: ikita n'ikibara.

Urugero:

1 → Ikibara

2 → Ikita

Umurongo w'umugabane

- Iyo basoma imigabane bahera ku kibara bajya ku kita.
- Ikita kivuga umubare w'ibice bihari.
- Akarongo gatambitse hagati y'ikita n'ikibara ni umurongo w'umugabane, kakavuga ugabanje na
- Ikibara kikavuga umubare w'ibice byagabanyijwe mu kizima.

Urugero:

Umugabane	Amazina
$\frac{1}{2}$	Kimwe cya kabiri
$\frac{1}{3}$	Kimwe cya gatatu
$\frac{1}{4}$	Kimwe cya kane
$\frac{1}{5}$	Kimwe cya gatanu
$\frac{1}{6}$	Kimwe cya gatandatu
$\frac{1}{8}$	Kimwe cya munani
$\frac{1}{10}$	Kimwe cya cumi

Umugabane	Amazina
$\frac{2}{3}$	Bibiri bya gatatu
$\frac{1}{7}$	Kimwe cya karindwi
$\frac{3}{4}$	Bitatu bya kane
$\frac{4}{5}$	Bine bya gatanu
$\frac{3}{7}$	Bitatu bya karindwi
$\frac{4}{9}$	Bine by'ikenda.
$\frac{5}{8}$	Bitanu by'umunani.

Igikorwa cya 2

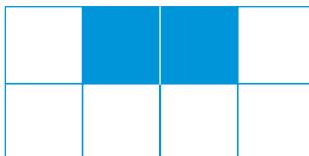
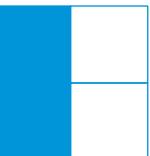
- 1) Muhine urupapuro mo ibice bibiri bingana.
- 2) Muvuge kandi mwandike umugabane wa buri gice mu mibare no mu magambo.

- 3) Muhine urupapuro mo ibice bitatu bingana maze ibice bibiri mubisige ibara hanyuma muvuge kandi mwandike mu mibare no mu magambo umugabane w'igice gisize ibara n'uwigice kidasize ibara.
- 4) Kuri buri mugabane mwanditse, mwerekane ikita n'ikibara.



Nsuzuma ngusuzume

Andika mu mibare no mu magambo imigabane isize amabara

- a) 
- b) 
- c) 

Imyitozo



- 1) Mwitegerezze hanyuma mwandike umugabane uhagarariye amabara akurikira:

- | | |
|------------|-------------|
| a) Umutuku | c) Umukara |
| b) Ubururu | d) Umuhondo |



- 2) Mwitegerezze ishusho, musubize ibibazo.



Ibibazo: Mwandike umugabane uhagarariye

- 1) Abakobwa
- 2) Abahungu
- 3) Abafite ubumuga
- 4) Abambaye amataratara
- 5) Abambaye amakabutura, imipira n'inkweto bya siporo
- 6) Abari kunywa umutobe
- 7) Abambaye amajipo n'inkweto z'umutuku
- 8) Abambaye amapantaro, inkweto z'umukara, amashati n'ingofero
- 9) Abari gukina umupira w'intoki

4.2 Gushushanya no gusiga amabara imigabane itarenze ikizima kandi ikita kitarenze 10

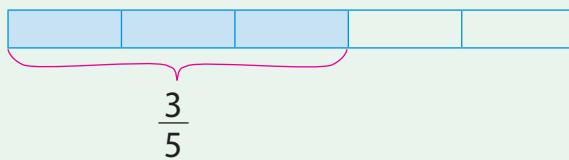
Igikorwa cya 1

Itegereze urugero, usobanure ibyakozwe.

Urugero:

$\frac{3}{5}$ by'iki gishushanyo bisize ibara.

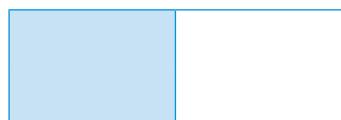
$\frac{2}{5}$ by'iki gishushanyo ntibisize ibara.



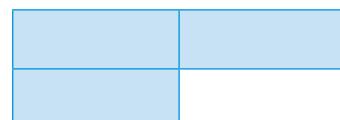
Igikorwa cya 2

Itegereze usobanure ibice by'ibi bishushanyo bisize
amabara n'ibidasize amabara.

a)



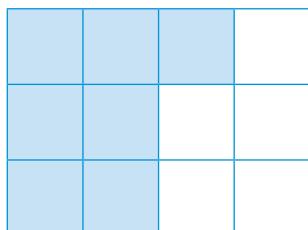
b)



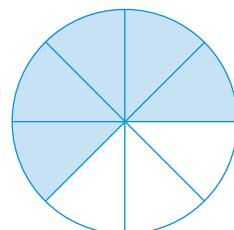
Igikorwa cya 3

Mwandike imigabane yashushanyijwe mu mibare no mu magambo.

a)



b)



Nsobanukiwe ko:

- Iyo ushushanya umugabane ushyira ibara mu bice bingana n'ikibara.
- Iyo wandika umugabane washushanyijwe, umubare w'ibice birimo ibara uba ikibara.
- Umubare w'ibice byose ni ukuvuga ibirimo ibara n'ibitarimo ibara uba ari ikita.

Imyitoto



- 1) Soma, wandike mu magambo, ushushanye maze usige amabara iyi migabane:

a) $\frac{4}{5}$

c) $\frac{3}{8}$

e) $\frac{6}{7}$

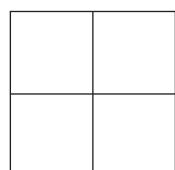
b) $\frac{2}{3}$

d) $\frac{7}{9}$

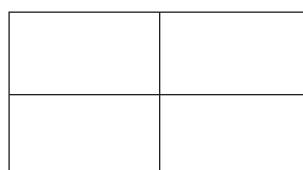
f) $\frac{4}{10}$

- 2) Siga ibara $\frac{3}{4}$ by'aya mashusho.

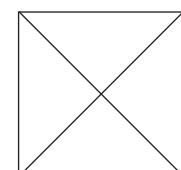
a)



b)

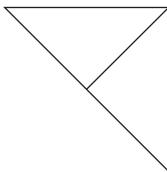


c)

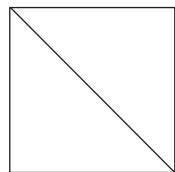


3) Siga ibara $\frac{1}{2}$ cy'aya mashusho

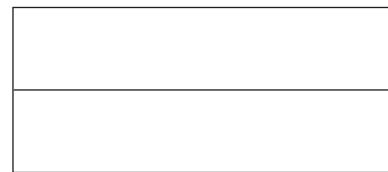
a)



b)



c)

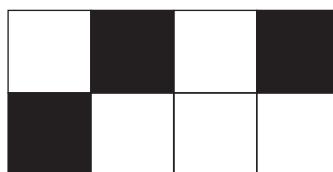


4) Andika mu mibare no mu magambo umugabane uhagarariye ahasize ibara muri buri shusho

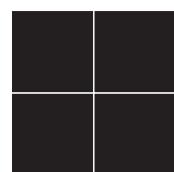
a)



b)



c)



5) Soma, wandike mu mibare, unashushanye iyi migabane:

a) Ikenda by'icumi:

d) Bitatu by'icumi:

b) Birindwi by'umunani:

e) Birindwi by'icumi:

c) Birindwi by'ikenda:

f) Bitanu by'umunani:

4.3 Kugereranya imigabane ihuje ikita kitarenze 10 kandi itarenze ikizima 1

Igikorwa

Ukurikije urugero wahawe, gereranya imigabane ikurikira.

Urugero: Koresha $>$, $<$ na $=$ ugereranye iyi migabane

a) $\frac{1}{3} < \frac{2}{3}$ b) $\frac{2}{4} < \frac{1}{4}$ c) $\frac{2}{3} = \frac{2}{3}$

a) $\frac{3}{8} \square \frac{1}{8}$ c) $\frac{1}{2} \square \frac{1}{2}$ e) $\frac{4}{6} \square \frac{5}{6}$

b) $\frac{5}{9} \square \frac{2}{9}$ d) $\frac{5}{5} \square \frac{5}{5}$ f) $\frac{1}{4} \square \frac{4}{4}$

Nsobanukiwe ko:

- Iyo ugereranya imigabane ihuje ikita ugereranya ibibara (imibare yo hejuru) maze ugashyiramo ikimenyetso k'igereranya gikwiye (<, > na =).
- Iyo ibibara n'ibyita bingana uhita umenya ko iyo migabane ingana.



Nsuzuma ngusuzume

Mukoreshe <, > na = mugereranye iyi migabane

- | | | |
|---|---|---|
| a) $\frac{1}{3}$ <input type="text"/> $\frac{2}{3}$ | d) $\frac{2}{5}$ <input type="text"/> $\frac{3}{5}$ | g) $\frac{1}{6}$ <input type="text"/> $\frac{4}{6}$ |
| b) $\frac{1}{4}$ <input type="text"/> $\frac{3}{4}$ | e) $\frac{4}{7}$ <input type="text"/> $\frac{1}{7}$ | h) $\frac{4}{10}$ <input type="text"/> $\frac{7}{10}$ |
| c) $\frac{4}{5}$ <input type="text"/> $\frac{2}{5}$ | f) $\frac{5}{6}$ <input type="text"/> $\frac{5}{6}$ | i) $\frac{7}{9}$ <input type="text"/> $\frac{8}{9}$ |

4.4 Gutondeka imigabane ihuje ikita kitarenze 10 kandi itarenga ikizima 1

- A. Gutondeka imigabane ihuje ikita kitarenze 10 kandi itarenga ikizima 1; uhereye ku muto ujya ku munini

Igikorwa cya 1

Itegereze urugero, usobanure ibyakozwe.

Urugero:

$$\frac{5}{6}, \frac{3}{6}, \frac{2}{6}, \frac{1}{6}, \frac{6}{6}, \frac{4}{6} \longrightarrow \frac{1}{6}, \frac{2}{6}, \frac{3}{6}, \frac{4}{6}, \frac{5}{6}, \frac{6}{6}$$

Imyitozo

Mutondeke iyi migabane muhereye ku muto mujya ku munini.

- | | |
|---|--|
| a) $\frac{5}{10}, \frac{3}{10}, \frac{2}{10}, \frac{1}{10}, \frac{6}{10}$ | c) $\frac{4}{10}, \frac{8}{10}, \frac{10}{10}, \frac{7}{10}, \frac{9}{10}$ |
| b) $\frac{2}{9}, \frac{1}{9}, \frac{6}{9}, \frac{4}{9}, \frac{5}{9}$ | d) $\frac{6}{8}, \frac{3}{8}, \frac{5}{8}, \frac{1}{8}, \frac{2}{8}$ |

Nsobanukiwe ko:

Iyo utondeka imigabane ihuje ikita uhoreye ku muto ujya ku munini, umugabane muto ni wo uba ufite ikibara gito. Umugabane munini ni wo uba ufite ikibara kinini.

B. Gutondeka imigabane ihuje ikita kitarenze 10 kandi itarenga ikizima 1 uhoreye ku munini ujya ku muto

Igikorwa

Tondeka iyi migabane uhoreye ku munini ujya ku muto ukurikije urugero wahawe.

Urugero:

$$\frac{5}{7}, \frac{3}{7}, \frac{2}{7}, \frac{7}{7}, \frac{6}{7}, \frac{4}{7} \longrightarrow \frac{7}{7}, \frac{6}{7}, \frac{5}{7}, \frac{4}{7}, \frac{3}{7}, \frac{2}{7}$$

- a) $\frac{5}{6}, \frac{3}{6}, \frac{2}{6}, \frac{1}{6}, \frac{6}{6}$ c) $\frac{2}{5}, \frac{1}{5}, \frac{3}{5}, \frac{4}{5}, \frac{5}{5}$
b) $\frac{4}{4}, \frac{3}{4}, \frac{2}{4}, \frac{1}{4}$ d) $\frac{3}{3}, \frac{1}{3}, \frac{2}{3}$

Nsobanukiwe ko:

Iyo utondeka imigabane ihuje ikita uhoreye ku muto ujya ku munini, umugabane munini ni wo uba ufite ikibara kinini. Umugabane muto ni wo uba ufite ikibara gito.



Reka nisuzume



- 1) Tondeka uhoreye ku mugabane muto ujya ku munini
- a) $\frac{3}{7}, \frac{2}{7}, \frac{7}{7}, \frac{6}{7}, \frac{4}{7}$ c) $\frac{8}{9}, \frac{1}{9}, \frac{6}{9}, \frac{9}{9}, \frac{5}{9}$
b) $\frac{10}{10}, \frac{2}{10}, \frac{8}{10}, \frac{6}{10}, \frac{9}{10}$ d) $\frac{2}{5}, \frac{1}{5}, \frac{3}{5}, \frac{4}{5}, \frac{5}{5}$

2) Tondeka uhoreye ku mugabane munini ujya ku muto

a) $\frac{3}{8}, \frac{2}{8}, \frac{7}{8}, \frac{6}{8}, \frac{4}{8}$

c) $\frac{3}{4}, \frac{1}{4}, \frac{2}{4}, \frac{4}{4}$

b) $\frac{5}{6}, \frac{2}{6}, \frac{4}{6}, \frac{6}{6}, \frac{1}{6}$

d) $\frac{2}{3}, \frac{1}{3}, \frac{3}{3}$

4.5 Iteranya ry'imigabane ihuje ikita kitarenze 10 kandi itarenze ikizima 1

Igikorwa

Mushake igiteranyo k'imigabane ikurikira mukurikije urugero mwahawe.

Urugero: Shaka igiteranyo k'imigabane ikurikira

a) $\frac{5}{9} + \frac{2}{9} =$

b) $\frac{4}{10} + \frac{5}{10} =$

$$\frac{5}{9} + \frac{2}{9} = \frac{5+2}{9} = \frac{7}{9}$$

$$\frac{4}{10} + \frac{5}{10} = \frac{4+5}{10} = \frac{9}{10}$$

a) $\frac{3}{8} + \frac{1}{8} =$

c) $\frac{2}{7} + \frac{3}{7} =$

e) $\frac{3}{8} + \frac{1}{8} =$

b) $\frac{2}{9} + \frac{7}{9} =$

d) $\frac{2}{4} + \frac{1}{4} =$

f) $\frac{4}{10} + \frac{5}{10} =$

Nsobanukiwe ko:

Iyo uteranya imigabane ihuje ikita uteranya ibibara maze ukandukura ikita utagihinduye.



Nsuzuma ngusuzume

Shaka igiteranyo k'imigabane ikurikira:

a) $\frac{4}{8} + \frac{2}{8} + \frac{1}{8} =$

c) $\frac{3}{9} + \frac{1}{9} + \frac{5}{9} =$

b) $\frac{2}{10} + \frac{5}{10} + \frac{1}{10} =$

d) $\frac{2}{7} + \frac{1}{7} + \frac{3}{7} =$

4.6 Amahurizo yo guteranya imigabane ihuje ikita kitarenga 10

Igikorwa

Kurikiza urugero wahawe, ukore aya mahurizo.

Urugero:

Kalisa yateye ibiti kuri $\frac{1}{8}$ cy'umurima we naho abakozi be bamuterera ahangana na $\frac{5}{8}$. Shaka umugabane w'umurima bose hamwe bateyeho ibiti.

Ibyo mfite	Ibyo mbazwa	Izira n'igisubizo
Umugabane watewe na Kalisa ni $\frac{1}{8}$ cy'umurima.	Umugabane w'umurima wateweheho ibiti.	Umugabane w'umurima wateweheho ibiti: $\frac{1}{8} + \frac{5}{8} = \frac{1+5}{8} = \frac{6}{8}$
Umugabane watewe n'abakozi ba Kalisa ni $\frac{5}{8}$ by'umurima.		



Nsuzuma ngusuzume

- 1) Mutesi yakoze $\frac{3}{5}$ by'umukoro avuye ku ishuri, bukeye arongera akoraho $\frac{1}{5}$. Shaka umugabane w'imyitozo amaze gukora.
- 2) $\frac{3}{10}$ by'inka za Mutunzi zirakamwa. Mu minsi ishize yongeyemo izindi mbyeyi zingana na $\frac{6}{10}$. Shaka umugabane w'inka zose zikamwa.
- 3) Ishyirahamwe ryasaruye $\frac{2}{6}$ by'umurima w'amashu ku wa gatatu naho ku wa kane ryongera gusarura $\frac{3}{6}$. Shaka umugabane w'ahamaze gusarurwa.

- 4) Umucuruzi yacuruje $\frac{2}{10}$ by'umufuka w'isukari n'umukirya umwe haje undi atwara $\frac{7}{10}$. Yacuruje isukari ingana n'uwuhe mugabane?

Nsobanukiwe ko:

Iyo ugiye gukora ihurizo ririmo guteranya imigabane ihuje ikita, ukora ibi bikurikira:

- Werekana ibyo baguhaye
- Werekana ibyo bakubaza
- Wandika imigabane wahawe mu ihurizo maze ukandukura ikita ugateranya ibibara.



Reka nisuzume



- 1) Umuboshyi yaboshye $\frac{2}{7}$ by'agaseke ku wa mbere, ku wa kabiri aboha $\frac{3}{7}$, naho ku wa gatatu aboha $\frac{1}{7}$. Ubwo amaze kuboha umugabane ungana iki muri iyo minsi itatu?
- 2) Uwera yahaye abana $\frac{5}{10}$ by'umugati mu gitondo naho nimugoroba abaha $\frac{3}{10}$ byawo. Ubwo bamaze kurya umugati ungana n'uwuhe mugabane?
- 3) Abanyeshuri bo mu mwaka wa gatatu basukuye $\frac{4}{9}$ by'ubusitani bw'ishuri ryacu, naho abo mu mwaka wa kane basukura $\frac{2}{9}$ by'ubusitani.
Bose hamwe basukuye umugabane ungana ute?
- 4) Umukerarugendo yagenze $\frac{3}{8}$ by'urugendo rwe mbere ya saa sita naho nyuma ya saa sita agenda $\frac{4}{8}$. Ubwo amaze kugenda umugabane ungana iki w'urugendo rwe?

4.7 Ikuramo ry'imigabane ihuje ikita kitarenze 10 kandi itarenze ikizima 1

Igikorwa cya 1

Shaka ikinyuranyo k'imigabane ukurikije urugero wahawe.

Urugero

a) $\frac{8}{10} - \frac{6}{10} =$

$$\frac{8}{10} - \frac{6}{10} = \frac{8-6}{10} = \frac{2}{10}$$

b) $\frac{8}{9} - \frac{3}{9} =$

$$\frac{8}{9} - \frac{3}{9} = \frac{8-3}{9} = \frac{5}{9}$$

a) $\frac{7}{9} - \frac{4}{9} =$

c) $\frac{5}{6} - \frac{4}{6} =$

e) $\frac{4}{5} - \frac{2}{5} =$

b) $\frac{8}{9} - \frac{7}{9} =$

d) $\frac{5}{8} - \frac{4}{8} =$

f) $\frac{10}{10} - \frac{8}{10} =$

Nsobanukiwe ko:

Iyo ukuramo imigabane ihuje ikita ukuramo ibibara maze ukandukura ikita utagihinduye.



Reka nisuzume



a) $\frac{9}{10} - \frac{4}{10} - \frac{3}{10} =$

c) $\frac{7}{9} - \frac{2}{9} - \frac{3}{9} =$

b) $\frac{8}{8} - \frac{1}{8} - \frac{6}{8} =$

d) $\frac{6}{7} - \frac{3}{7} - \frac{2}{7} =$

4.8 Amahurizo yo gukuramo imigabane ihuje ikita kitarenga 10

Urugero:

$\frac{3}{4}$ by'inka za Gisa ni inyana. Shaka umugabane w'inyana yasigaranye niba yaragabiye mubyara we $\frac{1}{4}$ k'inyana ze.

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Umugabane w'inyana zose ni $\frac{3}{4}$	Umugabane w'inyana yasigaranye	Umugabane w'inyana yasigaranye ni $\frac{3}{4} - \frac{1}{4} = \frac{3-1}{4} = \frac{2}{4}$
Umugabane w'inyana yagabiye mubyara we ni $\frac{1}{4}$		



Nsuzuma ngusuzume

- 1) Mutoni afite $\frac{9}{10}$ by'igisheke, yariyeho $\frac{3}{10}$. Shaka umugabane w'igisheke asigaranye.
- 2) Karabo afite $\frac{8}{9}$ by'umurima, yagurishijeho Gahima $\frac{4}{9}$. Shaka umugabane w'umurima yasigaranye.
- 3) Mwarimu wacu afite $\frac{9}{10}$ by'ingwa. Niyandikishaho $\frac{3}{10}$ uyu munsi arasigarana ingwa zingana n'uwuhe mugabane?

Nsobanukiwe ko:

Iyo ukora ihurizo ririmo gukuramo imigabane ukora ibi:

1. Ugaragaza ibyo baguhaye mu ihurizo
2. Ugaragaza ibyo bakubaza mu ihurizo
3. Kwandika imigabane wahawe mu ihurizo maze ukandukura ikita ugakuramo ibibara.



Reka nisuzume



- 1) Data yateye $\frac{6}{7}$ by'ibiti mu murima hamera $\frac{3}{7}$ gusa. Shaka umugabane ungana n'ibiti bitameze.
- 2) Butera afite $\frac{4}{5}$ by'akawunga. Nacuruzaho $\frac{3}{5}$ azasigarana akawunga kangana n'uwuhe mugabane?
- 3) Kariza yameshe $\frac{7}{8}$ by'imyenda ye. Huma imyenda ingana na $\frac{5}{8}$. Shaka umugabane ungana n'imyenda itaruma.

4.9 Gushaka icyuzuzo cy'umugabane kugira ngo haboneke ikizima 1

Igikorwa cya 1

Itegereze urugero, usobanure ibyakozwe.

Urugero: Shaka icyuzuzo cy'umugabane $\frac{5}{9}$ kugira ngo ubone ikizima kimwe.

$$\frac{5}{9} + \frac{\square}{9} = \frac{9}{9} \rightarrow \frac{9}{9} - \frac{5}{9} = \frac{9-5}{9} = \frac{4}{9}$$

Icyuzuzo cya $\frac{5}{9}$ ni $\frac{4}{9}$

Igiteranyo cyabyo ($\frac{9}{9}$) ni ikizima kimwe.

Igikorwa cya 2

Mushake icyuzuzo k'iyi migabane kugira ngo mubone ikizima kimwe

- | | | | | | |
|------------------|------------------|------------------|------------------|-------------------|-------------------|
| a) $\frac{4}{7}$ | c) $\frac{3}{5}$ | e) $\frac{2}{6}$ | g) $\frac{1}{6}$ | i) $\frac{2}{10}$ | k) $\frac{7}{10}$ |
| b) $\frac{6}{9}$ | d) $\frac{5}{8}$ | f) $\frac{3}{5}$ | h) $\frac{4}{5}$ | j) $\frac{2}{3}$ | l) $\frac{7}{9}$ |

Nsobanukiwe ko:

Iyo ushaka icyuzuzo cy'umugabane ureba ikita cy'umugabane baguhaye, ukakifashisha ukora ikizima, maze ugakuramo umugabane baguhaye.



Nsuzuma ngusuzume

Uzuza ukore umugabane ukwiye.

a) $\frac{\square}{7} + \frac{3}{7} = \frac{7}{7}$

b) $\frac{4}{9} + \frac{\square}{9} = \frac{9}{9}$

c) $\frac{6}{8} + \frac{\square}{8} = \frac{8}{8}$

d) $\frac{\square}{10} + \frac{1}{10} = \frac{10}{10}$

4.10 Umugabane w'umubare ushyitse

Igikorwa

Itegereze urugero wahawe, ushake imigabane ikurikira:

Urugero:

a) $\frac{1}{2}$ cya 16 =

$$\begin{aligned}\frac{1}{2} \text{ cya } 16 &= \frac{1 \times 16}{2} \\ &= \frac{16}{2} = 8\end{aligned}$$

b) $\frac{2}{3}$ bya 9 =

$$\begin{aligned}\frac{2}{3} \text{ bya } 9 &= \frac{2 \times 9}{3} \\ &= \frac{18}{3} = 6\end{aligned}$$

- a) $\frac{2}{3}$ bya 45 = c) $\frac{3}{7}$ bya 14 = e) $\frac{3}{10}$ bya 70 =
b) $\frac{4}{5}$ bya 15 = d) $\frac{5}{8}$ bya 40 = f) $\frac{4}{7}$ bya 35 =

Nsobanukiwe ko:

Iyo ushaka agaciro k'umugabane w'umubare ushyitse ufata uwo mubare ukawukuba n'ikibara. Igikubo ubonye ukakigabanya n'ikita.



Reka nisuzume



Itegereze amashusho maze uvuge kandi wandike umubare w'ibintu wabajijwe.



$\frac{1}{2}$ cy'aya macunga ni ____



$\frac{5}{6}$ by'izi nyanya ni ____



$\frac{3}{7}$ by'izi pome ni ____

	$\frac{7}{8}$ by'aya majagi ni __
	$\frac{5}{9}$ by'aya mapapayi ni __
	$\frac{7}{10}$ by'aya mashu ni __



Nsuzuma ngusuzume

Shaka agaciro k'umugabane w'imibare ishyitse ikurikira:

- | | | |
|---------------------------|----------------------------|----------------------------|
| a) $\frac{1}{8}$ cya 64 = | c) $\frac{7}{10}$ bya 50 = | e) $\frac{9}{10}$ bya 30 = |
| b) $\frac{5}{9}$ bya 54 = | d) $\frac{1}{10}$ cya 70 = | f) $\frac{7}{8}$ bya 56 = |

4.11 Amahurizo ku mugabane w'umubare ushyitse

Urugero

Uwase afite inka 60, ashaka kugurishaho $\frac{3}{4}$ byazo.

- a) Azagurisha inka zingahe?
- b) Azasigarana inka zingahe?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Umubare w'inka zose ni 60	Umubare w'inka azagurisha	Umubare w'inka azagurisha: $\frac{3}{4}$ bya 60 ni $\frac{60 \times 3}{4} = 45$
Umugabane w'inka azagurisha ni $\frac{3}{4}$	Umubare w'inka azasigarana	Umugabane w'inka azasigarana ni $\frac{4}{4} - \frac{3}{4} = \frac{1}{4}$ Umubare w'inka azasigarana ni $\frac{1}{4}$ cya 60 ni $\frac{60 \times 1}{4} = \text{Inka } 15$



Nsuzuma ngusuzume

- 1) Muhongerwa afite insina 200, $\frac{4}{5}$ byazo byaranny. Shaka umubare w'insina zanny n'uw'izitarana
- 2) Mu bubiko harimo imifuka 120 ya sima. Nibubakisha $\frac{5}{8}$ byayo bazaba bakoresheje imifuka ingahe? Mu bubiko hazasigara isima ingana iki?
- 3) Mu cyumba k'inama harimo abantu 125. $\frac{2}{5}$ byabo bafite mudasobwa. Shaka umubare w'abantu bafite mudasobwa n'uw'abatazifite.

Nsobanukiwe ko:

Iyo ugiye gukora ihurizo ririmo kugabanya imibare:

1. Werekana ibyo baguhaye mu ihurizo.
2. Werekana ibyo bakubaza mu ihurizo.
3. Wandika umugabane n'umubare wahawe mu ihurizo maze ugakuba ikibara n'umubare ushyitse hanyuma igikubo ubonye ukakigabanya n'ikita.



Reka nisuzume



- 1) Mu mudugudu wacu hubatse inzu 240. $\frac{5}{6}$ byazo bisakajwe amabati. Shaka umubare w'inzu zisakajwe amabati n'izidashakaje amabati.
- 2) Mu ishuri harimo abanyeshuri 45. $\frac{2}{3}$ byabo ni abahungu. Shaka umubare w'abahungu n'uw'abakobwa baryigamo.
- 3) Mu kigo gitwara abagenzi harimo imodoka 84. $\frac{4}{7}$ byazo zikorera mu Ntara. Ubwo mu Ntara hakorera imodoka zingahe?

4.12 Akamaro k'imigabane

Igikorwa cya 1

Mwitegerezze buri shusho, musobanure ibiri gukorwa.



Nsobanukiwe ko:

- Iyo abantu bagabana ibintu bitandukanye bakoresha imigabane.
- Abantu bashobora kugabana ibintu ku buryo bungana.
- Abantu bashobora kugabana ibintu ku buryo butangana.

Igikorwa cya 2

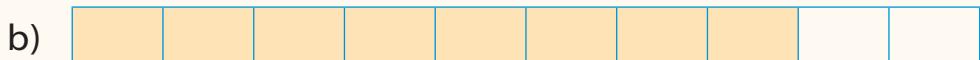
Buri wese abwire abandi ibyo iwabo bagabana.

Igikorwa cya 3

Muganire ku kamaro k'imigabane mutanga ingero z'aho ikoresha.

4.13 Isuzuma risoza umutwe wa 4

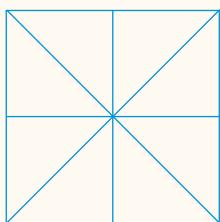
1) Andika mu mibare no mu magambo imigabane isize ibara



2) Shushanya maze usige ibara imigabane ikurikira :

a) $\frac{5}{8}$ b) $\frac{2}{5}$ c) $\frac{4}{6}$ d) $\frac{3}{7}$ e) $\frac{4}{9}$

3) Siga ibara $\frac{5}{8}$ by'iyi shusho



4) Gereranya ukoresheje <, > na =

a) $\frac{5}{7}$ $\frac{6}{7}$ c) $\frac{5}{9}$ $\frac{8}{9}$ e) $\frac{1}{5}$ $\frac{3}{5}$

b) $\frac{4}{6}$ $\frac{2}{6}$ d) $\frac{3}{4}$ $\frac{3}{4}$ f) $\frac{1}{8}$ $\frac{8}{8}$

5) Tondeka iyi migabane uhereye ku muto ujya ku munini

a) $\frac{3}{8}, \frac{2}{8}, \frac{7}{8}, \frac{6}{8}, \frac{4}{8}, \frac{1}{8}, \frac{5}{8}, \frac{8}{8}$

b) $\frac{2}{5}, \frac{1}{5}, \frac{3}{5}, \frac{4}{5}, \frac{5}{5}$

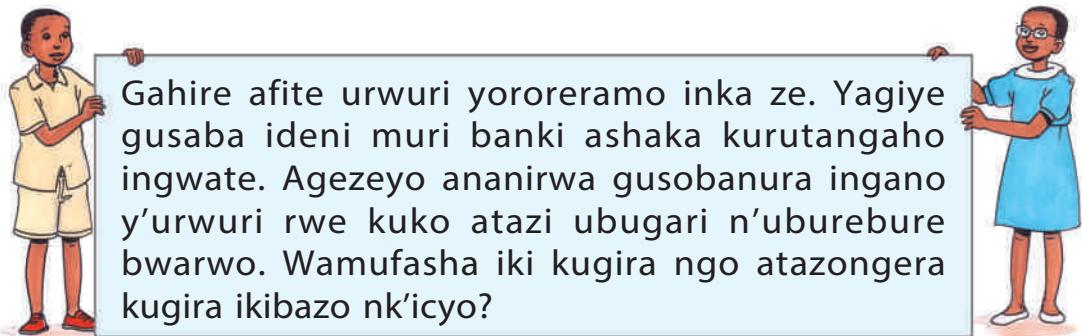
6) Tondeka iyi migabane uhereye ku munini ujya ku muto

a) $\frac{3}{7}, \frac{2}{7}, \frac{7}{7}, \frac{6}{7}, \frac{4}{7}, \frac{1}{7}, \frac{5}{7}$

b) $\frac{2}{6}, \frac{1}{6}, \frac{3}{6}, \frac{5}{6}, \frac{4}{6}$

- 7) Shaka umugabane wo kuzuza buri mugabane ukurikira kugira ngo haboneke ikizima
- a) $\frac{4}{7}$ b) $\frac{3}{8}$ c) $\frac{5}{9}$ d) $\frac{4}{10}$
- 8) Teranya iyi migabane
- a) $\frac{3}{7} + \frac{2}{7} =$ b) $\frac{4}{9} + \frac{2}{9} =$ c) $\frac{2}{5} + \frac{1}{5} =$
- 9) Kuramo iyi migabane
- a) $\frac{8}{9} - \frac{5}{9} =$ b) $\frac{9}{10} - \frac{3}{10} =$ c) $\frac{6}{7} - \frac{4}{7} =$
- 10) Shaka agaciro k'umugabane ka buri mubare wahawe
- a) $\frac{3}{4}$ bya 100 b) $\frac{7}{8}$ bya 64 c) $\frac{5}{6}$ bya 60
- 11) Gwiza yariye $\frac{2}{5}$ by'umugati yari afite mu gitondo. Shaka igiteranyo cy'umugabane ungana n'umugati amaze kurya niba nimugoroba yarongeye akaryaho $\frac{1}{5}$.
- 12) Gatare yabumbishiye amatafari $\frac{5}{7}$ by'amazi yari ari mu kigega. Shaka umugabane ungana n'amazi yasigaranye mu kigega.
- 14) Mutoni yasaruye $\frac{5}{6}$ by'amashu 360. Shaka umubare w'amashu yasaruye n'uwan'ayasigaye mu murima.
- 15) Shema yasomye $\frac{3}{8}$ by'igitabo ku wa gatanu, ku wa gatandatu na bwo asoma $\frac{4}{8}$. Amaze gusoma igice kingana n'uwanhe mugabane?
- 16) $\frac{7}{8}$ by'abanyeshuri 960 bishyuye amafaranga y'ishuri.
- a) Shaka umubare w'abanyeshuri bamaze kwishyura amafaranga y'ishuri.
b) Abanyeshuri batarishyura amafaranga y'ishuri ni bangahe?

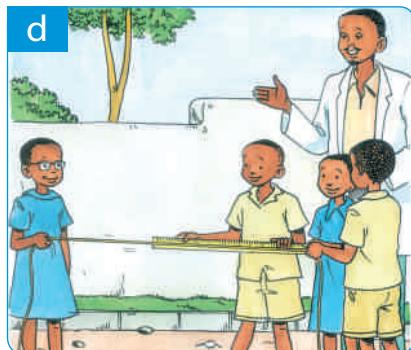
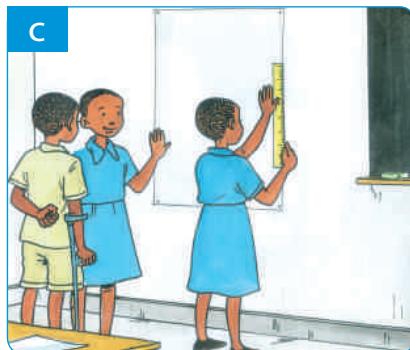
Isano iri hagati y'ingero z'uburebure



5.1 Ingero z'uburebure

Igikorwa cya 1

Mwitegerezze aya mashusho muvuge ibyo muyabonaho, mutange ingero z'ibikoresho byifashishwa mu gupima uburebure bw'ibantu, abantu n'ahantu.



Igikorwa cya 2

Mukoreshe imetero mupime ibi bikurikira:

- a) Uburebure n'ubugari by'ikibaho cyo mu ishuri ryanyu.
- b) Uburebure n'ubugari by'urugi rw'ishuri ryanyu.
- c) Uburebure n'ubugari by'akabati k'ibitabo ka mwarimu.

Igikorwa cya 3

Mukoreshe agacamurongo mupime ibi bikurikira:

- a) Uburebure n'ubugari bw'igitabo k'imibare
- b) Uburebure n'ubugari by'ikayi nini
- c) Uburebure bw'ikaramu

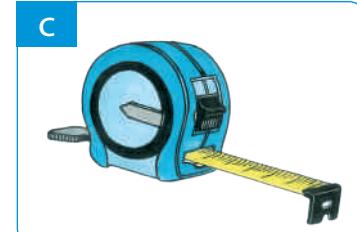
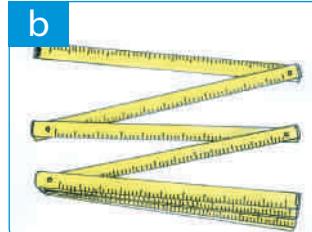
Igikorwa cya 4

Ni uruhe rugero rw'uburebure rukoreshwa iyo ushaka kumenya ibi bikurikira:

- a) Intera iri hagati y'umugi n'uwindi
- b) Uburebure bw'umuhanda uva i Kigali ukagera i Rubavu
- c) Umuzenguruko w'ikibanza
- d) Ubutumburuke bw'umusozzi
- e) Uburebure bw'akabati
- f) Uburebure n'ubugari by'igitabo
- g) Uburebure bw'umwenda

Igikorwa cya 5

Mwitegerezze aya mashusho, muvuge ibyo tuyabonaho.



Nsobanukiwe ko:

Ingero z'uburebure ari:

- | | |
|----------------------|---------------------|
| 1) Kilometero (km) | 5) Desimetero (dm) |
| 2) Hegitometero (hm) | 6) Santimetero (cm) |
| 3) Dekametero (dam) | 7) Milimetero (mm) |
| 4) Metero (m) | |
- Metero ni urugero fatizo mu ngero z'uburebure
 - km, hm na dam ni zo ngero z'uburebure ziruta metero
 - dm, cm na mm ni zo ngero z'uburebure zirutwa na metero (m)
 - Iyo upima uburebure, ubugari, ubutambike, ubuhagarike cyangwa ubutumburuke bw'ahantu ukoresha bimwe mu bikoresho bikurikira:
 - Dekametero
 - Metero buhine
 - Imetero
 - Agacamurongo
 - Metero bushumi
 - Umugozi

Igikorwa cya 5

Muvuge ubwoko bw'ibikoresho mwakoresha mupima uburebure bw'ibintu bikurikira

- | | |
|-------------------|-----------------------|
| a) Inzu y'igorofa | d) Umurima |
| b) Ikanzu | e) Akabati |
| c) Ikibanza | f) Imyambaro y'ishuri |

Imyitozo



Uzurisha ijambo rikwiye (metero, km, hm, dam icumi, dm, cm, mm, dekametero)

- a) ____ ni urugero fatizo mu ngero z'uburebure.
- b) Ingero z'uburebure zirutanwa inshuro ____
- c) ____, ___ na ___ ni zo ngero z'uburebure ziruta metero
- d) Ingero z'uburebure zirutwa na metero ni ____, ___ na ____
- e) Iyo ushaka gupima umuzenguruko w'inzu ukoresha ____

5.2 Isano iri hagati y'ingero z'uburebure

Igikorwa

Mwitegerezze imbonerahamwe y'ingero z'uburebure, musobanure uko ingero z'uburebure zirutana hagati yazo.

km	hm	dam	m	dm	cm	mm
1	0	☒	☒			
			1	0	☒	☒

Nsobanukiwe ko:

Ingero z'uburebure zirutana inshuro 10 uva ku rugero ruto ujya ku runini cyangwa uva ku rugero runini ujya ku ruto.

5.3 Guhindura ingero z'uburebure

A. Guhindura ingero z'uburebure uva ku rugero runini ujya ku rugero ruto

Igikorwa cya 1

Mwitegerezze imbonerahamwe y'ingero z'uburebure, muyigane, mukore imyitozo iyikurikira.

Ingero z'uburebure ziruta metero			Urugero fatizo mu ngero z'uburebure	Ingero z'uburebure zirutwa na metero		
km	hm	dam	m	dm	cm	mm
1	0					
	1	0				
		1	0			
			1	0		
				1	0	
					1	0

$$\text{km } 1 = \text{hm } 10$$

$$\text{hm } 1 = \text{dam } 10$$

$$\text{dam } 1 = \text{m } 10$$

$$\text{m } 1 = \text{dm } 10$$

$$\text{dm } 1 = \text{cm } 10$$

$$\text{cm } 1 = \text{mm } 10$$



Nsuzuma ngusuzume

- a) km 8 = hm _____
 b) km 7 = dam _____
 c) Hm 2 = dam _____
 d) Hm 4 = m _____

B. Guhindura ingero z'uburebure uva ku rugero ruto ujya ku rugero runini

Igikorwa cya 2

Mwitegerezere imbonerahamwe yo guhindura ingero z'uburebure, muyigane, mukore imyitoto.

Ingero z'uburebure ziruta metero			Urugero fatizo mu ngero z'uburebure	Ingero z'uburebure zirutwa na metero		
km	hm	dam	m	dm	cm	mm
1	☒					
	1	☒				
		1	☒			
			1	☒		
				1	☒	
					1	☒

$$\text{hm } 10 = \text{km } 1$$

$$\text{dam } 10 = \text{hm } 1$$

$$\text{m } 10 = \text{dam } 1$$

$$\text{dm } 10 = \text{m } 1$$

$$\text{cm } 10 = \text{dm } 1$$

$$\text{mm } 10 = \text{cm } 1$$



Reka nisuzume



- a) hm 90 = km _____
 b) dam 800 = km _____
 c) dam 60 = hm _____
 d) m 500 = hm _____

Nsobanukiwe ko:

- Uhindura ingero z'uburebure wifashisha imbonerahamwe y'ingero ukandikamo imibare wahawe.
- Uva ku rugero runini ujya ku ruto wongeraho zero (0).
- Uva ku rugero ruto ujya ku rugero runini ukuraho zero (0). Ibi bikorwa gusa ku mubare uherwa n'amazeru.

Imyitozo



Hindura mu rugero wabajijwe

- | | |
|-----------------------|--------------------------|
| a) m 450 = dam _____ | f) dam 234 = m _____ |
| b) hm 13 = m _____ | g) km 8 m 7 = m _____ |
| c) dam 56 = dm _____ | h) dm 4 mm 7 = mm _____ |
| d) mm 3500 = dm _____ | i) m 6 dm 8 = dm _____ |
| e) dm 4300 = m _____ | j) dam 9 cm 4 = cm _____ |

5.4 Kugereranya ingero z'uburebure

Igikorwa

Mukoreshe $>$, $<$ na = mugereranye ingero z'uburebure zikurikira mukurikije urugero mwahawe.

Urugero:

- a) dam 20 $<$ hm 20
 b) m 450 $<$ km 9
 c) dm 7 $>$ cm 58

km	hm	dam	m	dm	cm	mm
2	0	0				
2	0	0				
4	5	0				
9	0	0	0			
				7	0	
				5	8	

- | | |
|--------------------------------------|--|
| a) m 234 <input type="text"/> hm 23 | d) dam 87 <input type="text"/> dm 8700 |
| b) km 3 <input type="text"/> dam 300 | e) cm 256 <input type="text"/> dm 25 |
| c) dm 49 <input type="text"/> m 9 | f) mm 57 <input type="text"/> cm 5 |

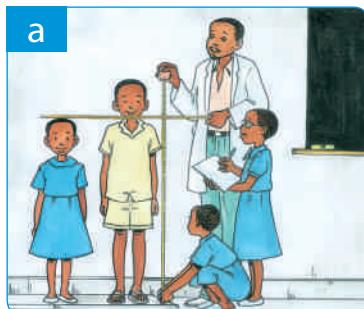
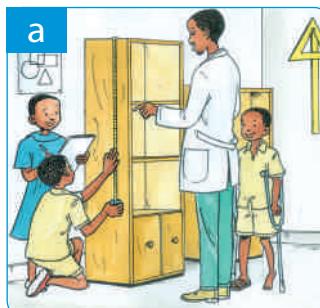
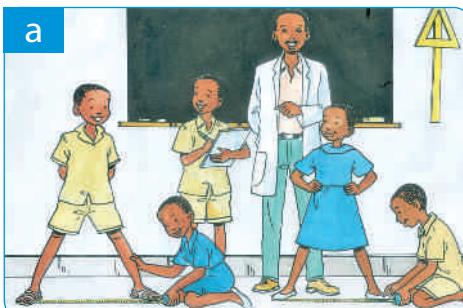
Nsobanukiwe ko:

Iyo ugereranya ingero z'uburebure, ubanza guhindura mu rugero ruto wahawe mu kibazo hanyuma ukagereranya imibare ukoresheje $<$, $>$ na =

5.5 Kugereranya ingero z'uburebure upima uburebure bw'ibintu binyuranye

Igikorwa cya 1

Mwitegerez aya mashusho, muvuge ibyo tuyabonaho.



Nsobanukiwe ko:

- Iyo ugereranya uburebure bw'ibintu binyuranye, urabipima maze ukagereranya uburebure bwabyo ugendeye ku mibare.
- Ukamenya ikigufi n'ikirekire ubigereranyije.

Igikorwa cya 2

- a) Ikibuga dukiniramo umupira w'amaguru gifite umuzenguruko wa m 300. Ikibuga cy'umupira w'amaguru cya sitade Amahoro gifite umuzenguruko wa m 400. Mugereranye ibi bibuga byombi muvuge ikinini n'igito.
- b) Mupime uburebure n'ubutambike by'ishuri mwigamo. Mugereranye ibipimo mubonye.

5.6 Kugreranya uburebure bw'ahantu usanisha intera n'inshuro zirimo

Igikorwa cya 1

Mwitegerez aya mashusho, muvuge ibyo tuyabonaho.



Igikorwa cya 2

Mugreranye maze musubize ibi bikurikira:

- Umuhanda wa km 20 urimo inshuro zingahe z'undi wa km 4?
- Muhoza yagenze km 30 naho mukuru we Shema agenda km 5. Vuga uwagenze ahantu harehare. Urugendo rwa Muhoza rukubye inshuro zingahe urwa Shema?

Nsobanukiwe ko:

Kugira ngo umenye inshuro uburebure bw'ahantu buruta ubwo ahandi hantu ufata uburebure bw'ahantu harehare ukabugabanya n'uburebure bw'ahagufi.

Igikorwa cya 3

- Mutere agapira n'amaboko maze muvuge uburebure buri hagati yanyu n'aho ako gapira kaguye. Nimurangiza muhapime murebe ko uburebure mwavuze mbere yo gupima bungana n'ubwo mubonye nyuma yo gupima.
- Mwitegerez ikibuga mukiniraho umupira, mugenekereze umuzenguruko wacyo. Mugipime murebe ko umuzenguruko mwavuze ungana n'uwo mubonye nyuma yo gupima.

Imyitozo



- 1) Koresha >, < na = ugereranye
 - a) km 3 m 5 hm 30
 - b) hm 4 m 7 m 407
 - c) dm 575 m 57
 - d) dam 49 hm 9
- 2) Umuhanda ufile km 45 z'uburebure urimo inshuro zingahe z'undi ufile km 9 z'uburebure?

5.7 Gutondeka ingero z'uburebure

A. Itondeka ry'ingero z'uburebure uva ku rugero ruto ujya ku rugero runini

Igikorwa

Mutondeke izi ngero z'uburebure muhereye ku rugero ruto mujya ku runini mukurikije urugero mwahaweye.

Urugero:

Km 5 dam 7, dam 786, hm 57 → km 5 dam 7, hm 57, dam 786

km	hm	dam	m	dm	cm	mm
5	0	7				
5	7	0				
7	8	6				

- a) m 125, hm 2, dam 8
- b) cm 34, mm 245, dm 5
- c) 9 km, hm 75, m 8759
- d) dm 765, m 98, dam 6
- e) dam 54, km 8, m 256
- f) cm 356, m 7, dm 49

Nsobanukiwe ko:

Iyo utondeka ingero z'uburebure ubanza guhindura ingero zose baguhaye mu rugero ruto rurimo warangiza ugatondeka uva ku rugero ruto ujya ku rugero runini uhoreye ku mibare yazo.

B. Gutondeka ingero z'uburebure uva ku rugero runini ujya ku rugero ruto

Igikorwa

Mutondeke izi ngero z'uburebure muhereye ku rugero runini mujya ku ruto mukurikije urugero mwahawe.

Urugero:

hm 45, dam 295, m 846 → m 846 , hm 45, dam 295

km	hm	dam	m	dm	cm	mm
4	5	0	0			
2	9	5	0			
8	4	6	0			

- a) m 785, hm 9, dam 54 d) dam 237, km 8, hm 56
b) m 247, dam 79, hm 76 e) dm 797, dam 8, m 92
c) 39 cm, mm 91, dm 49 f) dam 59, km 9, hm 48

Nsobanukiwe ko:

Iyo utondeka ingero z'uburebure ubanza guhindura ingero zose baguhaye mu rugero ruto rurimo warangiza ugatondeka uva ku rugero runini ujya ku rugero ruto uhoreye ku mibare yazo.

Imyitozo



- 1) Tondeka izi ngero z'uburebure uhoreye ku rugero ruto ujya ku runini:
 - a) m 7, mm 985, cm 565 c) cm 324, mm 765, m 8
 - b) dm 897, m 79, dam 9 d) mm 98, dm 987, cm 87
- 2) Tondeka izi ngero z'uburebure uhoreye ku rugero runini ujya ku ruto
 - a) km 6, m 9124, dam 698 c) dam 7, dm 987, cm 3 695
 - b) hm 74, km 9, dam 768 d) m 76, cm 4 897, dm 915

5.8 Guteranya ingero z'uburebure

Igikorwa

Koresha imbonerahamwe y'ingero z'uburebure ukore imyitozo ukurikije urugero wahawe.

Urugero: $\text{km } 8 + \text{dam } 18 = \text{m } 8\ 180$

km	hm	dam	m	dm	cm	mm
8	0	0	0			
+ ↓	1	8	0			
8	1	8	0			

- a) $\text{km } 9 + \text{m } 789 = \text{m } \underline{\quad}$ d) $\text{m } 5 + \text{cm } 500 = \text{dam } \underline{\quad}$
b) $\text{hm } 56 + \text{m } 238 = \text{m } \underline{\quad}$ e) $\text{dm } 375 + \text{m } 2 \text{ dm } 5 = \text{dam } \underline{\quad}$
c) $\text{dam } 475 + \text{m } 250 = \text{km } \underline{\quad}$ f) $\text{cm } 35 + \text{m } 9 = \text{cm } \underline{\quad}$

Nsobanukiwe ko:

Iyo uteranya ingero z'uburebure ubanza guhindura ingero zose baguhaye mu rugero wabajijwe warangiza ukabona guteranya.



Nsuzuma ngusuzume

Mukoreshe imbonerahamwe y'ingero z'uburebure, mwuzuze urugero rubura muri buri mwitozo.

- a) $\text{m } 145 + \text{m } 2\ 855 = \text{m } \underline{\quad} 3$ d) $\text{dam } 76 + \text{m } 240 = \text{dam } \underline{\quad} 1$
b) $\text{hm } 39 + \text{dam } 610 = \text{hm } \underline{\quad} 10$ e) $\text{dm } 63 + \text{cm } 37 = \text{cm } \underline{\quad} 667$
c) $\text{hm } 74 + \text{hm } \underline{\quad} 260 = \text{km } 10$ f) $\text{cm } 27 + \text{m } 6 = \text{m } \underline{\quad} 6\ 270$



Reka nisuzume



- a) $\text{hm } 47 + \text{dam } 930 = \text{km } \underline{\quad}$
b) $\text{m } 3 \text{ cm } 8 + \text{dm } 25 = \text{cm } \underline{\quad}$
c) $\text{m } 45 + \text{cm } 5\ 500 = \text{hm } \underline{\quad}$

5.9 Amahurizo yo guteranya ingero z'uburebure

Urugero:

Mu rwego rw'ubukerarugendo, Muhoza yagenze km 7 ku wa mbere, ku wa Kabiri agenda hm 80 naho ku wa gatatu agenda dam 400. Shaka km yagenze muri iyo minsi itatu.

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
1) Ku wa Mbere yagenze km 7	Km yagenze mu minsi itatu	Km yagenze mu minsi itatu: km 7 + km 8 + km 4 = km 19
2) Ku wa Kabiri yagenze hm 80 = km 8		
3) Ku wa gatatu yagenze dam 400 = km 4		



Nsuzuma ngusuzume

- 1) Umuyobozi w'imodoka yanditse uburebure bw'ingendo yakoze mu minsi itatu asanga ari km 359 umunsi wa mbere, hm 4 360 ku munsi wa kabiri na km 405 ku munsi wa gatatu. Shaka umubare wa km amaze kugenda muri iyo minsi itatu.
- 2) Mutesi afite m 175 z'igitambaro naho musaza we Gasana afite dm 1 250. Ubwo bombi bafite igitambaro kireshya na metero zingahe?
- 3) Mukiza yaguze umugozi wa m 150, ageze mu rugo asanga ari mugufi. Asubira kugura undi wa dm 2 500. Ubwo iyo migozi yombi ireshya na m zingahe?

Nsobanukiwe ko:

Iyo ukora amahurizo yo guteranya ingero, ubanza kwerekana ibyo baguhaye. Ugakurikizaho ibyo bakubaza hanyuma ugateranya ibyo baguhaye kugira ngo ubone igisubizo. Mbere yo guteranya ingero ubanza guhindura mu rugero bakabajije.



Reka nisuzume



- 1) Umunyonzi yagenze m 900 ava iwe ajya ku iseta. Agezeyo atwara umugenzi ku isoko riri kuri hm 11. Shaka hm yagenze kuva iwe kugera ku isoko.
- 2) Mu myitozo abasiganwa ku maguru birutse km 21 mu gitondo naho nimugoroba biruka dam 1 200. Shaka umubare wa hm birutse uwo munsi.

Imyitozo



- 1) Umuhanda uva i Kigali ujya i Huye ureshya na km 125 naho uva i Huye ujya i Rusizi hm 1670. Ubwo uvuye i Kigali ukajya i Rusizi wagenda km zingahe?
- 2) Kaneza afite umurima ureshya na m 95 z'uburebure naho mushiki we akagira ureshya na m 105 uri haruguru y'uwa musaza we. Ubwo iyo mirima uyiteranyije yombi yareshya gute?

5.10 Gukuramo ingero z'uburebure n'umubare ushyitse

Igikorwa

Koresha imbonerahamwe y'ingero z'uburebure ukore imyitozo ukurikije urugero wahawe.

Urugero: dam 425 – km 3 = dam 125

km	hm	dam	m	dm	cm	mm
4	2	5				
- 3	0	0				
1	2	5				

- | | |
|-------------------------|------------------------|
| a) hm 5 – m 298 = m | d) cm 75 – mm 579 = mm |
| b) km 9 – dam 832 = dam | e) dam 753 – hm 69 = m |
| c) dm 74 – cm 490 = dm | f) dm 835 – dam 7 = dm |

Nsobanukiwe ko:

Iyo ukuramo ingero z'uburebure ubanza guhindura ingero zose baguhaye mu rugero wabajije, warangiza ukabona gukuramo.



Nsuzuma ngusuzume

Mukoreshe imbonerahamwe y'ingero z'uburebure mwuzuze urugero rubura muri buri mwitotozo.

- a) km 5 – hm 28 = ___ 220 d) dam 415 – ___ 3 = m 1 150
b) hm 9 – dam 73 = ___ 170 e) dam 64 – m 440 = ___ 2
c) ___ 724 – dm 62 = cm 104 f) m 36 – cm 973 = ___ 2 627

5.11 Amahurizo yo gukuramo ingero z'uburebure

Urugero: Abakozi bakora umuhanda batangiye gusana umuhanda ufile km 56. Niba bamaze gusana dam 4 600 ubwo basigaje gusana km zingahe?

Ibyo mfite	Ibyo mbazwa	Igisubizo
1) Uburebure bw'umuhandza uzasanwa ni km 56	Uburebure bw'umuhandza utarasanwa	Uburebure bw'umuhandza utarasanwa:
2) Uburebure bw'umuhandza umaze gusanwa ni dam 4600 = km 46	muri km	km 56 – km 46 = km 10



Nsuzuma ngusuzume

- 1) Gisa yagiye mu marushanwa yo kwiruka km 42, amaze kwiruka dam 2900 arananirwa yikura mu irushanwa. Ubwo yari asigaje hm zingahe ngo arangize irushanwa?
- 2) Ishyirahamwe ry'abubatsi b'imihanda ryahawe akazi ko gushyira kaburimbo mu muhanda wa dam 987. Bamaze kuyishyira muri m 5870 bararihagarika. Barihagaritse risigaje km zingahe ngo rirangize akazi kose?

Nsobanukiwe ko:

Iyo ukora amahurizo yo gukuramo ingero z'uburebure ubanza kugaragaza ibyo baguhaye n'ibyo bakubaza mu iherizo ugahindura mu rugero ruto, ugakuramo, hanyuma ugahindura mu rugero bakubajije.



Reka nisuzume



- 1) Kariza yaguze m 175 z'ijyora agurishaho dam 9. Yasigaranye m zingahe?
- 2) Muhizi afite cm 186 z'uburebure. Kaneza afite cm 169. Ni nde muremure muri bo? Amurusha cm zingahe?

Imyitozo



- 1) Gisa yari afite dam 12 z'ijyora maze akuraho m 20 azidodeshamo imyenda y'abana. Yasigaranye m zingahe?
- 2) Ishimwe na Mugisha basimbutse umurambararo. Ishimwe asimbuka m 3. Mugisha asimbuka dm 25. Ni nde wasimbutse harehare? Yamurushije cm zingahe?

5.12 Gukuba ingero z'uburebure n'umubare ushyitse

Igikorwa cya 1

Koresha imbonerahamwe y'ingero z'uburebure ukore imyitozo ukurikije urugero wahawe.

Urugero: $m\ 125 \times 4 = hm\ 5$

km	hm	dam	m	dm	cm	mm
	1	2	5			
	x		4			
	5	0	0			

+1 +2

- a) $m\ 2\ cm\ 3 \times 3 = cm\ \underline{\hspace{2cm}}$
- b) $dam\ 42 \times 5 = hm\ \underline{\hspace{2cm}}$
- c) $hm\ 5\ dam\ 4 \times 2 = m\ \underline{\hspace{2cm}}$
- d) $m\ 81 \times 5 = dm\ \underline{\hspace{2cm}}$

Nsobanukiwe ko:

Iyo ukuba ingero z'uburebure n'umubare ushyitse ubanza ugakuba nk'uko bisanzwe hanyuma igikubo ubonye ukagihindura mu rugero wabajijwe.

Imyitozo



Mukoreshe imbonerahamwe y'ingero z'uburebure mwuzuze urugero rubura muri buri mwitoto.

- | | |
|--|---|
| a) m $375 \times 2 = \underline{\quad} 75$ | d) dam $4 \text{ m } 8 \times 5 = \underline{\quad} 24$ |
| b) m $72 \text{ dm } 3 \times 3 = \underline{\quad} 2 169$ | e) m $4 \text{ cm } 2 \times 6 = \underline{\quad} 2 412$ |
| c) hm $45 \times 4 = \underline{\quad} 18$ | f) dm $215 \times 8 = \underline{\quad} 172$ |

5.13 Amahurizo yo gukuba ingero z'uburebure n'umubare ushyitse

Urugero:

Abacuruzi 4 bagurishije m 25 z'ijyora buri wese. Shaka uburebure bw'amajyora yose bagurishije muri hm.

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
1) Umubare w'abacuruzi ni 4	Uburebure bw'amajyora yagurishijwe muri hm	Uburebure bw'amajyora yagurishijwe $= \text{m } 25 \times 4$ $= \text{m } 100 = \text{hm } 1$
2) Uburebure bwa buri jyora ryagurishijwe ni m 25		



Nsuzuma ngusuzume

- 1) Shaka uburebure bw'amajyora 6 niba buri jyora rifite m 50.
- 2) Shema, Keza na Mucyo buri wese afite m 30 z'urutsinga rw'amashanyarazi. Bateranyije izo nsinga zose bagira urutsinga rureshya rute?

- 3) Kazuba yaguze amajyora 56. Niba buri jyora rireshya na m 15, ubwo ayo majyora yose areshya ate?

Nsobanukiwe ko:

- Iyo ukora amahurizo yo gukuba ingero z'uburebure n'umubare ushyitse ubanza kwerekana ibyo baguhaye mu ihurizo, ugakurikizaho ibyo bakubaza, hanyuma ugakuba, ugahindura mu rugero bakabajije.



Reka nisuzume



- 1) Shaka uburebure bw'umuturirwa w'amagorofa 8 niba buri gorofa rifite m 4 z'uburebure.
- 2) Mahoro afite ibidongi 9 by'ubudodo ashaka gukoramo ikidongi kimwe. Shaka uburebure bw'ikidongi azagira niba buri kidongi gifite m 100 z'uburebure.
- 3) Ikompanyi ikora imihanda ikora km 7 buri munsi. Shaka uburebure bw'umuhandha iyo kompanyi ikora mu minsi 29.

Imyitozo



- 1) Abacuruzi 6 bagabanye ijyora buri wese atwara irifite dam 9. Iryo jyora bagabanye ryari rifite m zingahe z'uburebure?
- 2) Ngarambe yaguriye abana be 8 ibitambaro byo kudodeshamo imyambaro y'ishuri. Niba yaraguriye buri mwana m 5, ubwo bose hamwe yabaguriye dam zingahe?
- 3) Umuturirwa munini ku isi ugizwe n'amagorofa 127. niba buri gorofa riresha na m 5, ubwo uwo muturirwa wose ureshya ute?

5.14 Kugabanya ingero z'uburebure n'umubare ushyitse

Igikorwa cya 1

Koresha imbonerahamwe yo guhindura ingero z'uburebure ukore imyitozo ukurikije urugero wahawe.

Urugero: $\text{dam } 820 : 5 = \text{dam } 1\,640 = \text{m } 1\,640$

820	5	km	hm	dam	m	dm	cm	mm
- 5	164	1	6	4	0			
32								
- 30								
20								
- 20								
00								

- a) $\text{dm } 580 : 5 = \text{cm } \underline{\quad}$ d) $\text{cm } 480 : 8 = \text{dm } \underline{\quad}$
b) $\text{dam } 2\,400 : 6 = \text{km } \underline{\quad}$ e) $\text{m } 1\,200 : 3 = \text{hm } \underline{\quad}$
c) $\text{mm } 5\,400 : 9 = \text{dm } \underline{\quad}$ f) $\text{dm } 2\,000 : 4 = \text{dam } \underline{\quad}$

Nsobanukiwe ko:

Iyo ugabanya ingero z'uburebure ubanza kugabanya mu mahembe hanyuma ikigabanyo ubonye ukagihindura mu rugero wabajijwe.

Igikorwa cya 2

Mukoreshe imbonerahamwe yo guhindura ingero z'uburebure mwuzuze urugero rubura kuri buri mwitoto.

- a) $\text{hm } 248 : 8 = \underline{\quad} 3\,100$ d) $\text{cm } 680 : 4 = \underline{\quad} 17$
b) $\text{dam } 485 : 5 = \underline{\quad} 970$ e) $\text{dm } 650 : 5 = \underline{\quad} 13$
c) $\text{m } 2\,800 : 7 = \underline{\quad} 4$ f) $\text{cm } 960 : 3 = \underline{\quad} 3\,200$

5.15 Amahurizo yo kugabanya ingero z'uburebure n'umubare ushyitse

Urugero: Abadozi 8 bagabanye ku buryo bungana
igitambaro cy'umwenda cya m 96. Buri wese
yahawe igitambaro cy'umwenda kireshya gite?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Uburebure bw'ijyora ni m 96 Umubare w'abantu ni 8	Uburebure bw'ijyora rya buri wese	Uburebure bw'ijyora buri wese yahawe $= m 96 : 8 = m 12$



Nsuzuma ngusuzume

- 1) Abacuruzi 6 b'insinga z'amashanyarazi bagabanye ku buryo bungana m 240 z'urutsinga. Buri wese yatwaye dam zingahe?
- 2) Abantu 9 bagabanye ku buryo bungana igisheke gifite dm 18 z'uburebure. Buri wese yatwaye igisheke gifite cm zingahe?

Nsobanukiwe ko:

- Iyo ukora amahurizo yo kugabanya ingero z'uburebure ubanza kuvana mu ihurizo ibyo baguhaye, ugakurikizaho ibyo bakubaza, ukagabanya.
- Ukagabanya igisubizo ubonye ukagihindura mu rugero bakabajije.



Reka nisuzume



- 1) Tunga arashaka kubaka umuturirwa ufile m 50 z'uburebure. Niba ashaka ko uwo muturirwa uzaba ugizwe n'amagorofa 10 angana ubwo buri gorofa rizaba rireshya rite?
- 2) Umurenge wacu wahaye abantu 8 akazi ko gukubura umuhanda ufile hm 8. Nibawugabana ku buryo bungana buri wese azakubura ahafite m zingahe?

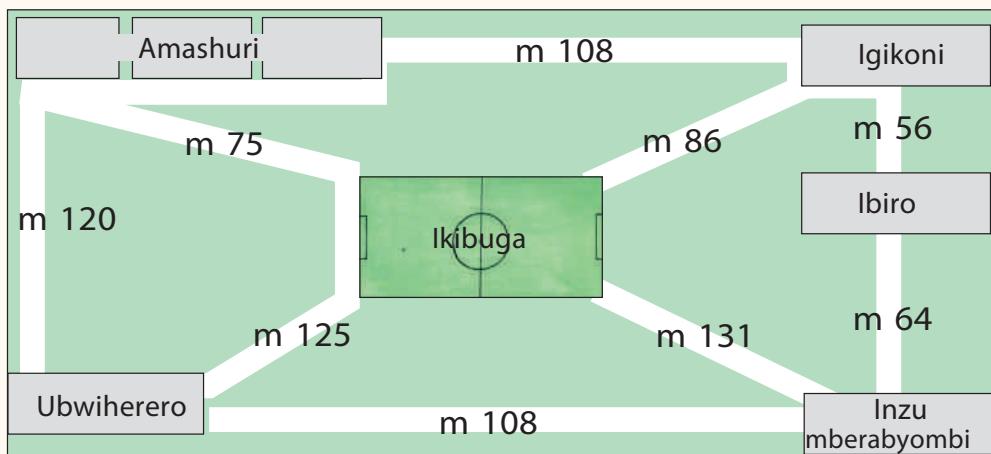
Imyitozo



Umucuruzi afite umwenda upima m 49 z'uburebure.
Nacamo ibipande 7 bingana ubwo buri gipande kizaba gifite
dm zingahe?

5.16 Isuzuma risoza umutwe wa 5

- 1) Hindura izi ngero mu rugero wabajijwe
 - a) $km\ 2\ m\ 6 = m\ \underline{\hspace{2cm}}$
 - b) $dm\ 240 = m\ \underline{\hspace{2cm}}$
 - c) $m\ 7\ mm\ 8 = mm\ \underline{\hspace{2cm}}$
 - d) $dm\ 2\ 400 = dam\ \underline{\hspace{2cm}}$
- 2) Koresha <, > na = ugereranye izi ngero z'uburebure
 - a) $m\ 456\ \square\ hm\ 8$
 - b) $km\ 8\ \square\ dam\ 789$
 - c) $mm\ 46\ \square\ cm\ 4$
 - d) $dam\ 7\ \square\ m\ 79$
- 3) Tondeka uhereye ku rugero ruto ujya ku rugero runini
 $m\ 259, hm\ 2\ m\ 9, dam\ 29\ m\ 5$
- 4) Tondeka uhereye ku rugero runini ujya ku rugero ruto
 $km\ 6\ dam\ 8, hm\ 608, dam\ 68$
- 5) Kora
 - a) $dam\ 75 \times 4 = km$
 - b) $m\ 590 : 5 = dm$
 - c) $m\ 4\ cm\ 8 \times 5 = dm$
 - d) $dm\ 6400 : 8 = dam$
- 6) Itegerezze iyi shusho usubize ibibazo



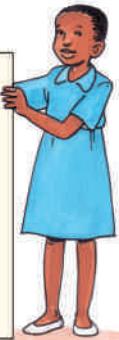
Ibibazo

- a) Hagati y'amashuri n'ikibuga cy'umupira w'amaguru hari dm zingahe?
 - b) Hagati y'amashuri n'ubwihherero hari dam zingahe?
 - c) Uvuye ku mashuri ukajya mu biro by'ubuyobozzi, waba ugenze m zingahe?
 - d) Uvuye ku mashuri ukajya mu gikoni, waba ugenze m zingahe?
 - e) Kamana yavuye ku mashuri yiruka aca ku gikoni, anyura ku biro, akomereza ku cyumba k'inama, aca ku bwihherero maze akomereza ku kibuga cy'umupira asubira ku mashuri aho yaturutse. Ubwo yagenze m zingahe zose hamwe?
- 7) Soma aka gakuru neza usubize ibibazo.
- Jabo, Gatari, Kamanzi na Kagabo basiganwe kwiruka kugeza igihe uzajya yumva ananiwe azajya yivana mu isiganwa. Jabo yiruka km 8 arananirwa, Gatari yiruka dam 897 arananirwa, Kamanzi ananirwa amaze kwiruka hm 95 naho Kagabo we ananirirwa kuri m 9 759.
- a) Muri bose ni nde wirutse m nyinshi? Ni zingahe?
 - b) Muri bose ni nde wirutse m nkeya? Ni zingahe?
 - c) Batondeke uhereye ku wirutse ahantu harehare ujya kuwirutse ahantu hagufi
 - d) Batondeke uhereye ku wirutse ahantu hagufi ujya ku wirutse ahantu harehare
- 8) Shimwa bamuhaye intego yo kwiruka km 50 adahagaze, amaze kwiruka dam 487 arananirwa yemera ko atsinzwe intego. Yananiwe asigaje kwiruka m zingahe?
- 9) Ku munsi w'ikiruhuko niruka m 500 inshuro 6. Ubwo niruka km zingahe?
- 10) Uwase yaboshye umugozi wo gusimbuka ufite m 36, awugabanyamo imigozi 9 ingana. Shaka uburebure bwa buri mugozzi muri cm.

Ingero z'uburemere kuva kuri kg kugera kuri g



Sano ni umuhinzi w'ikitegererezo mu murenge wacu. Ibyo asaruye arabigurisha byose bigashira. Sano ntajya akoresha umunzani mu gupima ibyo asaruye cyangwa agurishije. Wamugira inama yo kwiga iki mu mibare kugira ngo arusheho gukora akazi ke neza?



6.1 Ingero z'uburemere

Igikorwa cya 1

Mwitegerezze aya mashusho, muvuge ibyo muyabonaho.



Isukari



Umuceri



Gazi

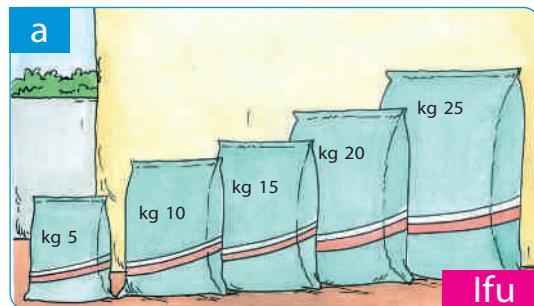
Igikorwa cya 2

Mwitegerezze aya mashusho, muvuge ibyo muyabonaho.

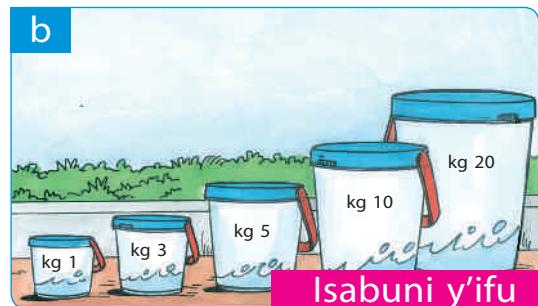


Igikorwa cya 3

Musome maze mwandike amazina n'uburemere bw'ibantu biri ku mashusho.



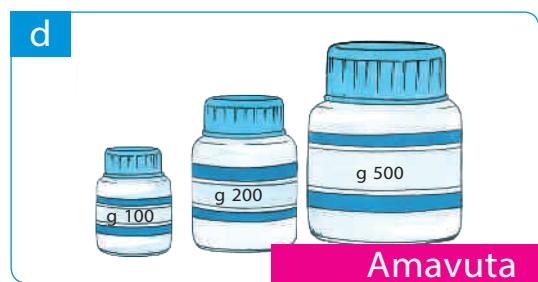
Ifu



Isabuni y'ifu



Amabuye y'umunzani



Amavuta

Igikorwa cya 4

Muganire ku kamaro ko gukoresha umunzani ndetse n'ahandi hantu ingero z'uburemere zikoreshwa hatagari mu mashusho.

Nsobanukiwe ko:

- Garama (g) ni rwo rugero fatizo mu ngero z'uburemere.
- Garama (g) ikoreshwa iyo ibyapimwe ari utuntu tworoshye nk'amavuta yo kwisiga, imiti, ...
- Kilogarama (kg) ni rwo rugero mu ngero z'uburemere rukunze gukoreshwa cyane.
- Usibye kg na g hari n'izindi ngero z'uburemere nka hg (hegitogarama) na dag (dekagarama)
- Iminzani y'isaha, iya gakwege n'uwan' amabuye ni yo idufasha kumenya uburemere bw'ibantu bitandukanye.
- Ingero z'uburemere zikoreshwa mu bucruzi, mu nganda, mu rugo, kwa muganga, mu bwikorezi, mu myidagaduro.

6.2 Isano iri hagati y'ingero z'uburemere

Igikorwa

Mwitegerezze imbonerahamwe y'ingero z'uburebure, musobanure uko ingero z'uburebure zirutana hagati yazo.

kg	hg	dag	g	dg	cg	mg
1	0	✗	✗			
			1	0	✗	✗

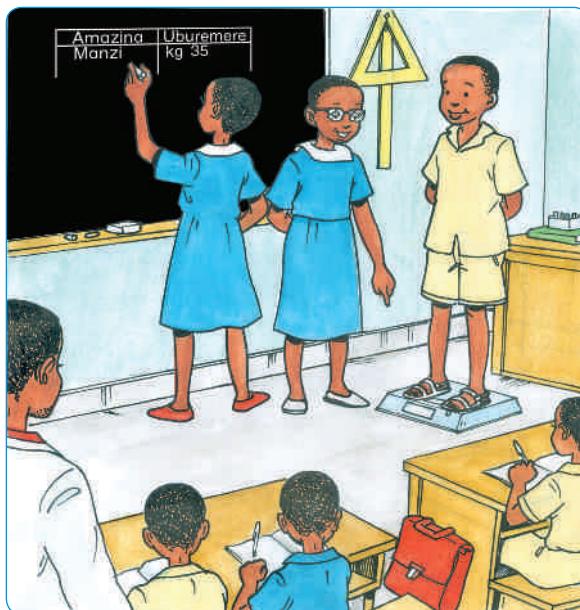
Nsobanukiwe ko:

Ingero z'uburemere zirutana inshuro 10 uva ku rugero ruto ujya ku runini cyangwa uva ku rugero runini ujya ku ruto.

6.3 Kwandika no gusoma ingero z'uburemere kuva kuri kg kugera kuri g

Igikorwa cya 1

Mwitegerezze ishusho, musobanure ibiri gukorwa.



Igikorwa cya 2

Itegereze uce imbonerahamwe y'ingero z'uburemere imeze nk'iyi, maze wandike uko basoma buri rugero mu ikayi yawe.

Ingero z'uburemere ziruta garama			Urugero fatizo mu ngero z'uburemere	Ingero z'uburemere zirutwa na garama		
kg	hg	dag	g	dg	cg	mg
1	0					
	1	0				
		1	0			
			1	0		
				1	0	
					1	0

Imyitozo



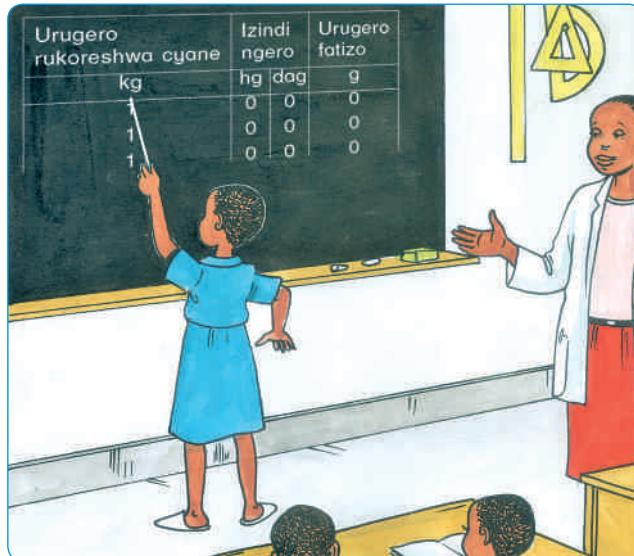
- Soma uhuze impine z'ingero z'uburemere n'uko zisomwa ukurikije urugero wahawe

kg	Hegitogarama
hg	Garama
dag	Kilogarama
g	Dekagarama
- Subiza yego cyangwa oya
 - Ni byiza kugura ibintu bidapimye.
 - Kg ni rwo rugero fatizo mu ngero z'uburemere.
 - Garama (g) ni rwo rugero rw'uburemere rukoreshwa cyane kurusha izindi.

6.4 Guhindura ingero z'uburemere kuva kuri kg kugera kuri g

Igikorwa cya 1

Mwitegerezze iyi shusho, muvuge ibyo muyibonaho.



Igikorwa cya 2

Muce imbonerahamwe yo guhindura ingero z'uburemere mu makayi y'imyitozo. Mukore ibibazo mukurikiza ibyo mwabonye mu gikorwa cya 1.

- a) $\text{kg } 5 = \text{dag } \underline{\quad}$ c) $\text{dag } 43 = \text{g } \underline{\quad}$
b) $\text{hg } 12 = \text{dag } \underline{\quad}$ d) $\text{hg } 4 = \text{g } \underline{\quad}$

Nsobanukiwe ko:

- Ingero z'uburemere zirutanwa inshuro icumi hagati yazo
- Iyo uhindura ingero z'uburemere wifashisha imbonerahamwe yo guhindura ukandikamo imibare wahawe
- Iyo uva ku rugero runini ujya ku rugero ruto wongeraho zero (0)
- Iyo uva ku rugero ruto ujya ku rugero runini ukuraho zero (0) ibi bikorwa gusa ku mibare iherwa n'amazeru.

Imyitozo



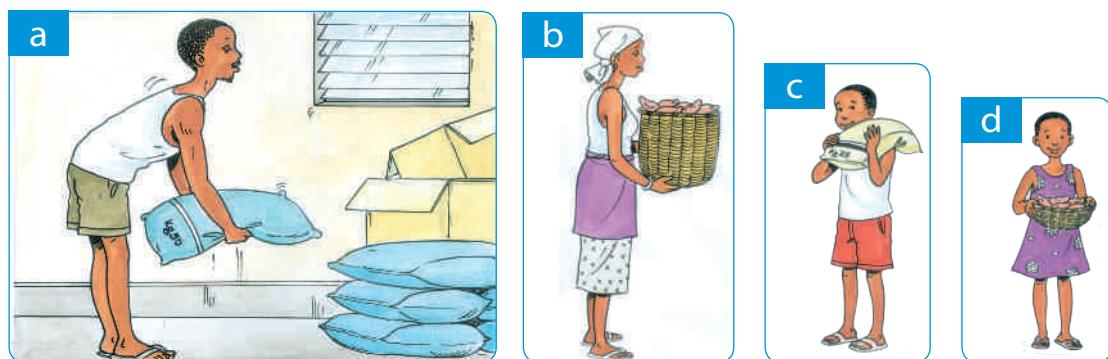
- a) dag 145 = g __
- b) kg 9 g 8 = g __
- c) g 7 800 = hg __
- d) dag 600 = kg __
- e) hg 7 g 72 = g __
- f) kg 4 dag 65 = g __

6.5 Kugereranya ingero z'uburemere

A. Kugereranya ingero z'uburemere uterura

Igikorwa cya 1

Mwitegerez aya mashusho, muvuge ibyo muyabonaho.



Igikorwa cya 2

Muterure amabuye, amatafari, ibikapu by'amakayi, udukarito tw'ingwa, udukarito tw'amakayi n'utw'amakaramu. Uteruye ikintu age agereranya avuge uburemere bwacyo, mubiganireho.

Igikorwa cya 3

Muterure ibintu bitandukanye mugereranye uburemere bwabyo, mubishyire mu matsinda 2. Itsinda rya mbere rigemo ibihuje uburemere naho irya kabiri rigemo ibidahuje uburemere mubiganireho.

B. Kugereranya ingero z'uburemere upima

Igikorwa cya 1

Mwitegerezze aya mashusho, muvuge ibyo tuyabonaho.



Igikorwa cya 2

Mukoreshe umunzani mupime uburemere bw'ibi bikurikira, mwandike uburemere bwabyo hanyuma mubugereranye.

- 1) Agakarito kuzuye ingwa n'akarimo ubusa
- 2) Ibitabo 5 by'imibare n'ibitabo 5 by'Ikinyarwanda
- 3) Agakarito karimo utubuye n'akarimo ingwa

Igikorwa cya 3

Mukoreshe umunzani upima uburemere bw'abantu buri wese yipime ibiro bye, yandike amazina ye n'ibiro yagize nimurangiza murebe ufite ibiro bike, ababinganya; n'ufite byinshi kubarusha.

C. Kugereranya ingero z'uburemere ukoresheje <, > na =

Igikorwa

Mwifashishije imbonerahamwe muhindure ingero z'uburemere mwahawe mu rugero ruto ruri mu zo mwahawe hanyuma mugereranye mukoresheje >, < na =

- | | | | | | |
|-----------|----------------------|----------|------------|----------------------|----------------------------|
| a) kg 2 | <input type="text"/> | dag 2003 | d) g 908 | <input type="text"/> | hg 9 g 8 |
| b) hg 67 | <input type="text"/> | g 670 | e) kg 5 | dag 7 | <input type="text"/> hg 75 |
| c) dag 89 | <input type="text"/> | kg 8 | f) dag 135 | <input type="text"/> | hg 12 |

Nsobanukiwe ko:

- Iyo ugereranya ingero z'uburemere ubanza guhindura ingero zigereranywa mu rugero ruto mu ngero baguhaye.
- Ugakurikizaho kugereranya imibare.
- Ukabona gushyiramo ikimenyetso kimwe muri ibi bimenyetso by'igereranya (<, > cyangwa =)

Imyitozo



Gereranya ingero z'uburemere wahawe.

- | | | | | | |
|--------------|----------------------|----------|----------|----------------------|----------------------------|
| a) kg 6 g 9 | <input type="text"/> | hg 69 | d) g 479 | <input type="text"/> | hg 4 g 9 |
| b) hg 78 | <input type="text"/> | dag 87 | e) kg 8 | dag 6 | <input type="text"/> hg 86 |
| c) dag 7 g 9 | <input type="text"/> | hg 9 g 7 | f) hg 12 | <input type="text"/> | dag 129 |

6.6 Gutondeka ingero z'uburemere kuva kuri kg kugera kuri g

A. Gutondeka ingero z'uburemere uva ku rugero ruto ujya ku rugero runini

Igikorwa

Mutondeke izi ngero z'uburemere muhereye ku rugero ruto mujya ku rugero runini mukurikije urugero mwahawe.

Urugero: kg 9, dag 8, dag 895, hg 79
 → hg 79, dag 895, kg 9, dag 8

kg	hg	dag	g
9	0	8	
8	9	5	
7	9	0	

- | | |
|-------------------------|-------------------------|
| a) dag 45, hg 79, g 530 | d) hg 76, kg 4, dag 576 |
| b) hg 52, dag 549, kg 9 | e) dag 345, kg 8, hg 56 |
| c) dag 79, g 310, hg 48 | f) g 271, 54 dag, 9 kg |

Nsobanukiwe ko:

Iyo utondeka ingero z'uburemere uva ku rugero ruto ujya ku runini ubanza guhindura ingero zose baguhaye mu rugero ruto ruri mu zo baguhaye. Warangiza ugatondeka uva ku rugero ruto ujya ku rugero runini wifashishije imibare yazo.

B. Gutondeka ingero z'uburemere uva ku rugero runini ujya ku rugero ruto

Igikorwa

Mutondeke izi ngero z'uburemere muhereye ku rugero runini mujya ku rugero ruto mukurikije urugero mwahawe.

Urugero: dag 789, hg 85, g 497 → hg 85 ,dag 789, g 497

kg	hg	dag	g
7	8	9	0
8	5	0	0
	4	9	7

- | | |
|------------------------|-------------------------|
| a) g 791, kg 7, hg 65 | c) dag 153, hg 68, kg 9 |
| b) dag 24, g 869, kg 4 | d) dag 64, kg 5, hg 245 |

Nsobanukiwe ko:

Iyo utondeka ingero z'uburemere uva ku rugero runini ujya ku ruto ubanza guhindura ingero zose baguhaye mu rugero ruto ruri mu zo baguhaye. Warangiza ugatondeka uva ku rugero ruto ujya ku rugero runini wifashishije imibare yazo.

Imyitozo



- 1) Tondeka izi ngero uhereye ku ruto ujya ku runini
 - a) dag 54, g 84, hg 6
 - b) hg 27, dag 45, kg 9
 - c) dag 87, g 58, hg 7
 - d) dag 96, g 97, kg 6
- 2) Tondeka izi ngero uhereye ku runini ujya ku ruto
 - a) g 897, hg 57, kg 5
 - b) dag 29, hg 18, g 47
 - c) g 538, dag 648, kg 7
 - d) hg 68, g 291, dag 164

6.7 Guteranya ingero z'uburemere kuva kuri kg kugera kuri g

Igikorwa

Koresha imbonerahamwe y'ingero z'uburemere, usubize ibibazo ukurikije urugero wahawe.

Urugero: $kg\ 4\ g\ 7 + hg\ 25\ g\ 3 = dag\ 651$

kg	hg	dag	g
		+1	
4	0	0	7
+ 2	5	0	3
6	5	1	0

- a) $dag\ 130 + hg\ 7 = kg\ \underline{\hspace{2cm}}$
- b) $hg\ 56 + dag\ 40 = kg\ \underline{\hspace{2cm}}$
- c) $dag\ 85 + g\ 7\ 150 = hg\ \underline{\hspace{2cm}}$
- d) $kg\ 7 + hg\ 3 = dag\ \underline{\hspace{2cm}}$

Nsobanukiwe ko:

Iyo uteranya ingero z'uburemere ubanza guhindura ingero zose baguhaye mu rugero wabajije ukabona guteranya.

Imyitozo



Mukoreshe imbonerahamwe y'ingero z'uburebure mwuzuze urugero rubura muri buri mwitoto.

- | | |
|--|--|
| a) $g\ 52 + dag\ 75 = \underline{\quad} 802$ | d) $dag\ 195 + g\ 50 = \underline{\quad} 2$ |
| b) $dag\ 78 + g\ 220 = \underline{\quad} 1$ | e) $dag\ 73 + g\ 270 = \underline{\quad} 10$ |
| c) $kg\ 6 + dag\ 24 = \underline{\quad} 624$ | f) $hg\ 75 + dag\ 105 = \underline{\quad} 855$ |

6.8 Amahurizo yo guteranya ingero z'uburemere kuva kuri kg kugera kuri g

Urugero:

Baho, Gaju, Teta na Gisa bagiye ku munzani basanga Baho afite kg 36, Gaju afite kg 33, Teta afite kg 35 naho Gisa afite kg 34. Bose hamwe ubashyize ku munzani bapima kg zingahe?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Baho apima kg 36	kg bose	Bose hamwe bapima
Gaju apima kg 33	hamwe bapima	$kg = kg\ 36 + kg\ 33$
Teta apima kg 35		$+ kg\ 35 + kg\ 34$
Gisa apima kg 34		$= kg\ 138$



Nsuzuma ngusuzume

- 1) Masabo yaranguye kg 56 z'ifu y'amasaka, kg 195 z'ifu y'ingano kg 189 z'ifu y'uburo na kg 205 z'ifu ya sosoma. Niba yaravanzé ayo mafu yose agakora ifu y'igikoma ivanzé yagize kg zingahe?
- 2) Butera yasaruye hg 987 za kawa umwaka ushize naho uyu mwaka yasaruye dag 9 130. Ubwo yasaruye kg zingahe muri iyi myaka ibiri?

Nsobanukiwe ko:

Iyo ukora amahurizo yo guteranya ingero z'uburemere,
ubanza kuvana mu ihurizo ibyo baguhaye n' ibyo bakubaza.
Hanyuma ugateranya, ugahindura mu rugero bakabajije.



Reka nisuzume



- 1) Ejo Uwamahoro yacuruje dag 975 z'umuceri naho uyu munsi yacuruje g 9 250. Shaka umubare wa kg yacuruje mu minsi ibiri.
- 2) Kamariza yajyanye na murumuna we Gatoni kurangura ubunyobwa, bagezeyo Kamariza arangura kg 375 naho murumuna we arangura hg 2 250. Bombi baranguye kg zingahe z'ubunyobwa?

Imyitozo



- 1) Umucuruzi w'imyaka yaranguye hg 1 000 z'ibishyimbo, kg 50 z'isukari, kg 50 z'umuceri, kg 50 z'umunyu na dag 7 500 z'ubunyobwa. Shaka uburemere muri kg bw'ibintu byose yaranguye.
- 2) Nganji bamutumye guhaha agura g 500 z'umunyu, hg 10 z'inyama, dag 50 z'isukari, kg 2 z'inyanya, dag 300 z'ifu na hg 10 z'umuceri. Shaka uburemere bw'ibintu byose yahashye muri kg.

6.9 Gukuramo ingero z'uburemere kuva kuri kg kugera kuri g

Igikorwa

Koresha imbonerahamwe yo guhindura ingero z'uburemere usubize ibibazo ukurikije urugero wahawe.

Urugero: $\text{dag } 425 - \text{kg } 3 = \text{dag } 125$

kg	hg	dag	g
4	2	5	
- 3	0	0	
1	2	5	

- a) $\text{g } 321 - \text{dag } 27 = \text{g}$
- b) $\text{dag } 756 - \text{kg } 5 \text{ hg } 7 = \text{dag}$
- c) $\text{hg } 98 - \text{dag } 95 = \text{g}$
- d) $\text{kg } 7 \text{ dag } 6 - \text{g } 2860 = \text{hg}$
- e) $\text{dag } 498 - \text{hg } 39 = \text{g}$
- f) $\text{g } 976 - \text{hg } 8 \text{ g } 6 = \text{dag}$

Nsobanukiwe ko:

Iyo ukuramo ingero z'uburemere ubanza guhindura ingero zose baguhaye mu rugero wabajije warangiza ukabona gukuramo.

Imyitozo



Mukoreshe imbonerahamwe yo guhindura ingero z'uburemere mwuzuze urugero rubura muri buri mwitozo.

- a) $\text{dag } 825 - \text{g } 250 = \underline{\quad} 8$
- b) $\text{dag } 972 - \text{kg } 9 = \underline{\quad} 72$
- c) $\text{g } 760 - \text{hg } 5 = \underline{\quad} 26$
- d) $\text{dag } 673 - \text{hg } 47 = \underline{\quad} 203$

6.10 Amahurizo yo gukuramo ingero z'uburemere kuva kuri kg kugera kuri g

Urugero:

Niga mu mwaka wa kabiri napimaga kg 32 g 800. Ubu nsigaye mpima hg 390. Ubwo maze kwiyongeraho hg zingahe?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
1) Niga mu wa kabiri napimaga kg 32 g 800 ni hg 328	hg maze kwiyongeraho	hg maze kwiyongeraho ni hg 390 – hg 328 = hg 62
2) Ubu mfite hg 390		



Nsuzuma ngusuzume

- 1) Manzi yaranguye kg 65 z'isukari agurishaho hg 390. Ubwo yasigaranye kg zingahe?
- 2) Mu rugo twaguze umufuka w'umuceri wa kg 50 duhaho umuturanyi dag 1 200. Ubwo twasigaranye hg zingahe?

Nsobanukiwe ko:

Iyo ukora amahurizo yo gukuramo ingero z'uburemere ubanza kwerekana ibyo baguhaye n'ibyo bakubaza mu ihurizo. Ugahindura mu rugero wabajijwe, ukabona gukuramo.



Reka nisuzume



- 1) Keza apima kg 39 akarusha murumuna we Mugeni kg 6. Ubwo Mugeni apima kg zingahe?
- 2) Umwaka ushize Mariza yapimaga kg 98. Aho atangiriye gufata indyo yihariye no gukora imyitozo ngororamubiri ubu asigaye apima kg 65. Ubwo yatakaje kg zingahe?

Imyitozo



- 1) Usanase yaranguye kg 100 z'amasaka acuruzaho hg 380 mu gitondo na dag 4 500 nimugoroba. Yasigaranye kg zingahe?
- 2) Kayitare yahembwe hg 800 z'isukari avanaho dag 5 000 arazigurisha ngo yikenure isigaye ayijyana mu rugo. Ubwo yasigaranye kg zingahe?

6.11 Gukuba ingero z'uburemere kuva kuri kg kugera kuri g n'umubare ushyitse

Igikorwa

Koresha imbonerahamwe yo guhindura ingero z'uburemere, usubize ibibazo ukurikije urugero wahawe.

Urugero: $\text{kg } 2 \text{ dag } 5 \times 4 = \text{hg } 82$

kg	hg	dag	g
2	0	5	
×		4	
8	2	0	

- a) dag $275 \times 2 = \text{hg } \underline{\quad}$ e) dag $145 \times 6 = \text{hg } \underline{\quad}$
b) g $125 \times 8 = \text{kg } \underline{\quad}$ f) dag $34 \times 7 = \text{g } \underline{\quad}$
c) g $225 \times 4 = \text{hg } \underline{\quad}$ g) dag $45 \times 6 = \text{hg } \underline{\quad}$
d) g $184 \times 5 = \text{dag } \underline{\quad}$ h) g $138 \times 5 = \text{dag } \underline{\quad}$

Nsobanukiwe ko:

Iyo ukuba ingero z'uburemere n'umubare ushyitse ubanza guhindura ingero zose baguhaye mu rugero wabajijwe warangiza ukabona gukuba.



Nsuzuma ngusuzume

Mukoreshe imbonerahamwe yo guhindura ingero z'uburemere, mwuzuze urugero rubura muri buri mwitozo.

- | | |
|---|--|
| a) g $258 \times 5 = \underline{\quad} 129$ | f) kg $4 \text{ dag } 3 \times 3 = \underline{\quad} 1\ 209$ |
| b) dag $265 \times 8 = \underline{\quad} 212$ | g) dag $29 \times 7 = \underline{\quad} 203$ |
| c) dag $725 \times 4 = \underline{\quad} 29$ | h) g $450 \times 8 = \underline{\quad} 36$ |
| d) g $815 \times 2 = \underline{\quad} 163$ | i) kg $98 \times 5 = \underline{\quad} 490$ |
| e) hg $4 \text{ g } 5 \times 6 = \underline{\quad} 243$ | j) hg $185 \times 6 = \underline{\quad} 111$ |

6.12 Amahurizo yo gukuba ingero z'uburemere kuva kuri kg kugera kuri g

Urugero:

Nziza yaguze amakarito 8 y'isabune. Niba buri karito yari ifite kg 25 ubwo ayo makarito yose yari afite uburemere bungana iki?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
1) Umubare w'amakarito y'isabune ni 8	Uburemere bw'amakarito yose	Uburemere bw'amakarito yose: $\text{kg } 25 \times 8 = \text{kg } 200$
2) Uburemere bwa buri karito ni kg 25		



Nsuzuma ngusuzume

- 1) Niba ipaki imwe y'umunyu ipima g 500. Ubwo amapaki 9 y'uwo munyu apima hg zingahe?
- 2) Mu rugo duteka g 500 z'umuceri buri munsi. Ubwo mu minsi 8 tuba tumaze guteka kg zingahe?

Nsobanukiwe ko:

Iyo ukora amahurizo yo gukuba ingero z'uburemere n'umubare ushyitse, ubanza kwerekana ibyo baguhaye. Ugakurikizaho ibyo bakubaza, ugakuba ibyo baguhaye hanyuma igikubo ubonye ukagihindura mu rugero bakabajije



Reka nisuzume



- 1) Mugabo yaguze amapaki 8 y'ifarini. Niba buri paki iba irimo kg 5, ubwo yaguze kg zingahe z'ifarini zose hamwe?
- 2) Icyuma gitunganya umuceri gitonora kg 1 875 buri munsi. Ubwo gitonora kg zingahe mu minsi 4?

Imyitozo



- 1) Mu minsi 2 uruganda rw'isukari ruzaba rukoze kg zingahe niba buri munsi rukora kg 2 750?
- 2) Muhizi yasaruye imifuka 9 y'umuceri ipima kg 100 buri mufuka. Ubwo yasaruye kg zingahe z'umuceri zose hamwe?

6.13 Kugabanya ingero z'uburemere kuva kuri kg kugera kuri g n'umubare ushyitse

Igikorwa

Koresha imbonerahamwe y'ingero z'uburemere, ukore imyitozo ukurikije urugero wahawe.

Urugero:

dag 965 : 5 =

$$\begin{array}{r}
 965 \\
 - 5 \\
 \hline
 91 \\
 - 5 \\
 \hline
 46 \\
 - 45 \\
 \hline
 15 \\
 - 15 \\
 \hline
 00
 \end{array}
 \quad
 \begin{array}{r}
 5 \\
 \downarrow \\
 193
 \end{array}$$

dag 965 : 5 = dag 193 Ndabihindura muri g nifashishije imbonerahamwe:

kg	hg	dag	g
1	9	3	0

$$\begin{aligned}
 \text{Ubwo dag } 965 : 5 &= \text{dag } 193 \\
 &= \text{g } 1\,930
 \end{aligned}$$

- a) hg 840 : 4 = hg ___ = kg ___
- b) dag 660 : 6 = hg ___
- c) g 620 : 2 = dag ___
- d) dag 550 : 5 = g ___

Nsobanukiwe ko:

Iyo ugabanya ingero z'uburemere n'umubare ushyitse ubanza kugabanya, warangiza ugahindura mu rugero wabajijwe.

Imyitozo



Mukoreshe imbonerahamwe y'ingero z'uburemere, mwuzuze urugero rubura muri buri mwitoto.

- | | |
|--------------------------|-----------------------------|
| a) dag 2 000 : 5 = ___ 4 | d) g 4 200 : 7 = ___ 6 |
| b) g 1 477 : 7 = ___ 211 | e) hg 6 g 8 : 4 = ___ 152 |
| c) g 2 080 : 8 = ___ 26 | f) kg 8 dag 40 : 6 = ___ 14 |

6.14 Amahurizo yo kugabanya ingero z'uburemere kuva kuri kg kugera kuri g n'umubare ushyitse

Urugero:

Umucuruzi yaranguye kg 100 z'umuceri azigabanyiriza mu dufuka 4 ku buryo bungana. Ubwo buri gafuka yagashyizemo kg zingahe?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Umuceri waranguwe ni kg 100. Umubare w'udufuka ni 4.	Uburemere bw'umuceri washyizwe muri buri gafuka	Uburemere bw'umuceri washyizwe muri buri gafuka ni kg 100 : 4 = kg 25



Nsuzuma ngusuzume

- 1) Naranguye kg 75 z'isabune y'ifu nzigabanyiriza mu tudobo 5 ku buryo bungana. Muri buri kadobo nashyizemo kg zingahe?
- 2) Abantu 8 bishyize hamwe barangura kg 200 z'isukari bageze iwabo bayigabana ku buryo bungana. Ubwo buri muntu yatwaye kg zingahe?

Nsobanukiwe ko:

Iyo ukora amahurizo yo kugabanya ingero z'uburemere n'umubare ushyitse, ubanza kwerekana ibyo baguhaye. Ugakurikizaho ibyo bakubaza, ukagabanya ibyo baguhaye. Ikigabanyo ubonye ukagihindura mu rugero bakubajije.



Reka nisuzume



- 1) Gabanya ku buryo bungana dag 9 600 z'imbuto y'ibirayi abahinzi 8. Buri wese uzamuha kg zingahe?
- 2) Ishyirahamwe ryahaye ku buryo bungana hg 720 z'ibishyimbo abanyamuryango baryo 9. Buri munyamuryango yahawe kg zingahe?
- 3) Shyira g 9 750 mu mapaki 5 angana. Buri paki uzashyiramo dag zingahe?
- 4) Gabanya ku buryo bungana hg 240 z'ubunyobwa abantu 8. Buri muntu uzamuha kg zingahe?

Imyitozo



- 1) Shyira ku buryo bungana g 840 z'ifumbire mvaruganda ku ngemwe z'ibiti 7. Buri rugemwe uzarushyiraho ifumbire ingana ite?
- 2) Gabanya ku buryo bungana hg 4 000 z'imbuto y'ingano Imirenge 5. Buri Murenge uzawuha kg zingahe?
- 3) Shyira ku buryo bungana kg 8 mu dupaki dupima g 8 kamwekamwe. Uzashyira uwo muti mu dupaki tungahe?
- 4) Saranganya ku buryo bungana dag 1 200 z'umuceri abantu 6. Buri muntu uzamuha kg zingahe?

6.15 Isuzuma risoza umutwe wa 6

- 1) Hindura mu rugero wabajijwe
 - a) kg 8 g 250 = dag __
 - b) dag 56 g 9 = g __
 - c) g 7 800 = hg __
 - d) kg 6 g 79 = g __
- 2) Koresha <, > na = ugereranye izi ngero z'uburemere
 - a) hg 74 g 59 dag 745
 - b) g 798 dag 798
- 3) Tondeka uhoreye ku rugero ruto ujya ku runini
hg 48, g 487, dag 487
- 4) Tondeka uhoreye ku rugero runini ujya ku ruto
 - a) hg 65, dag 56 g 8, kg 6 g 8
 - b) hg 75, kg 5 hg 7, dag 657
- 5) Kora imyitozo ikurikira
 - a) hg 78 g 70 + g 130 = kg __
 - b) dag 245 + g 6 550 = hg __
 - c) dag 87 – hg 7 dag 8 = dag __
- 6) Kora aya mahurizo
 - a) Mugabe yaranguye hg 750 z'ibishyimbo ku wa mbere, ku wa kabiri arangura dag 6 500 naho ku wa gatatu arangura kg 60. Yaranguye kg zingahe muri iyo minsi itatu?
 - b) Ineza yaguze amapaki y'isukari 7. Niba buri paki yari irimo kg 5 ubwo yaguze hg zingahe z'isukari?
 - c) Mu mpera z'umwaka ishyirahamwe ryahembye ku buryo bungana hg 1 000 z'umuceri abanyamuryango baryo 4 bagize imyitwarire myiza. Buri wese yahawe kg zingahe?
 - d) Musinga yajyanye dag 857 z'ubunyobwa ku isoko, agezeyo agurishaho g 6 570 ibisigaye abisubiza mu rugo. Ubwo yagurishije kg zingahe z'ubunyobwa?

Ingero z'ibitembabuzi kuva kuri ℓ kugera kuri ml



Mutuze agemura ibicuba by'amata 15 ku munsi ku ikusanyirizo. Buri gicuba kijyamo litiro 20 z'amata. Nyuma y'iminsi 2 ntabwo aba azi ingano y'amata yagemuye. Ubwo akeneye gusobanukirwa iki mu mibare cyamufasha gukora akazi ke neza?



7.1 Ingero z'ibitembabuzi kuva kuri ℓ kugera kuri ml

Igikorwa cya 1

Mwitegerezze aya mashusho, muvuge ibyo muyabonaho.



Igikorwa cya 2

Mukoreshe icupa rya ml 500 cyangwa rya ℓ 1 mupime kandi mwandike ubunini bw'ibi bivomesho:

- Indobo ijyamo amacupa 10
- Ijerikani nini ijyamo amacupa 20

Igikorwa cya 3

Mukoreshe akajerekani k'amazi ka ℓ 5 mupime kandi mwandike ubunini bw'ibi bivomesho:

- Ijerekani nini ijyamo utujerekani 4
- Ingunguru ijyamo utujerekani 20



Reka nisuzume



Ni uruhe rugero mu ngero z'ibitembabuzi rukoreshwa iyo ushaka kumenya ibi bikurikira:

- Urugero rw'umuti w'amazi uha umwana
- Ingano y'ijerekani y'amazi

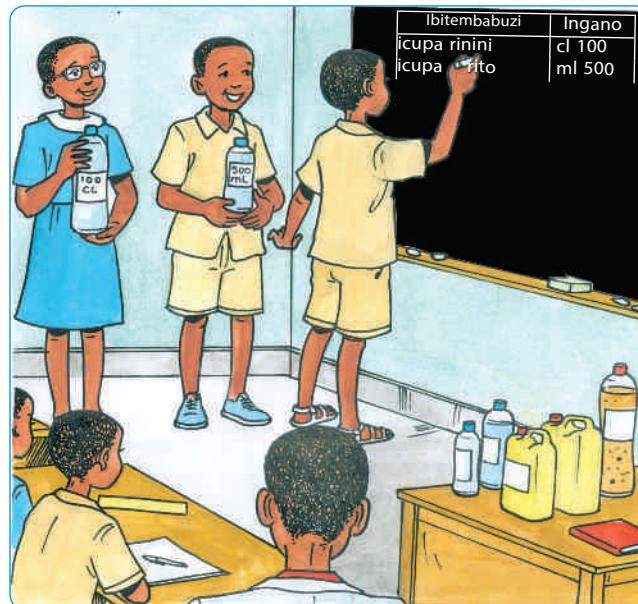
Nsobanukiwe ko:

- Ingero z'ibitembabuzi zirimo
 - Litiro (l)
 - Desilitiro (dl)
- Litiro (l) ni rwo urugero fatizo mu ngero z'ibitembabuzi
- Desilitiro (dl), santilitilo (cl) na mililitiro (ml) ni zo ngero z'ibitembabuzi zirutwa na litiro.

7.2 Gusoma no kwandika ingero z'ibitembabuzi kuva kuri l kugeza kuri ml

Igikorwa cya 1

Mwitegerezze ishusho, musobanure ibiri gukorwa.



Igikorwa cya 2

Mwitegerez imbonerahamwe y'ingero z'ibitembabuzi:

- a) Muganire uko basoma buri rugero.
- b) Mwandike uko basoma buri rugero mu makayi yanyu.

Urugero fatizo mu ngero z'ibitembabuzi	Ingero z'ibitembabuzi zirutwa na litiro		
Litiro <i>(l)</i>	Desilitiro <i>(dl)</i>	Santilitiro <i>(cl)</i>	Mililitiro <i>(ml)</i>

7.3 Isano iri hagati y'ingero z'ibitembabuzi kuva kuri *l* kugeza kuri *ml*

Igikorwa

Mwitegerez imbonerahamwe y'ingero z'ibitembabuzi, musobanure uko zirutana hagati yazo.

<i>l</i>	<i>dl</i>	<i>cl</i>	<i>ml</i>
1	0		
	1	0	
		1	0

Nsobanukiwe ko:

Ingero z'ibitembabuzi zirutana inshuro 10 uva ku rugero ruto ujya ku runini cyangwa uva ku runini ujya ku ruto.

Imyitozo



Uzuza izi nteruro n'ijambo rikwiye: (desilitiro, santilitiro, litiro icumi, mililitiro, icupa rya litiro, ingero z'ibitembabuzi)

- a) ___ ni urugero fatizo mu ngero z'ibitembabuzi.
- b) Ingero z'ibitembabuzi zirutana inshuro ___.
- c) ___ na ___ ni zo ngero z'ibitembabuzi zirutwa na litiro
- d) Iyo ushaka gupima amazi ari mu kajerekani ukoresha ___.
- e) ___ zifasha abacuruza ibitembabuzi kumenya ingano y'ibyo barangura cyangwa bacuruza.

7.4 Guhindura ingero z'ibitembabuzi kuva kuri ℓ kugera kuri ml

- A. Guhindura ingero z'ibitembabuzi uva ku rugero runini ujya ku rugero ruto

Igikorwa

Mwitegerezze imbonerahamwe ikurikira y'ingero z'ibitembabuzi, muyigane mukore imyitozo ikurikira yo muri "Reka nisuzume".

Urugero fatizo mu ngero z'ibitembabuzi	Ingero z'ibitembabuzi zirutwa na litiro		
Litiro (ℓ)	Desilitiro ($d\ell$)	Santilitiro (cl)	Mililitiro (ml)
1	0		
1	0	0	
1	0	0	0
	1	0	
	1	0	0
		1	0

Nsobanukiwe ko:

$$\ell 1 = d\ell 10$$

$$\ell 1 = cl 100$$

$$\ell 1 = ml 1000$$

$$d\ell 1 = cl 10$$

$$d\ell 1 = ml 100$$



Reka nisuzume



- a) $\ell 8 = d\ell \underline{\hspace{2cm}}$ c) $cl 5 = ml \underline{\hspace{2cm}}$ e) $d\ell 94 = cl \underline{\hspace{2cm}}$
 b) $d\ell 7 = cl \underline{\hspace{2cm}}$ d) $\ell 92 = d\ell \underline{\hspace{2cm}}$ f) $cl 39 = ml \underline{\hspace{2cm}}$

- B. Guhindura ingero z'ibitembabuzi uva ku rugero ruto ujya ku rugero runini

Igikorwa

Mwitegerezze imbonerahamwe yo guhindura ingero z'ibitembabuzi, muyigane mukore imyitozo ikurikira yo muri "Nsuzuma ngusuzume".

Urugero fatizo mu ngero z'ibitembabuzi	Ingero z'ibitembabuzi zirutwa na litiro		
Litiro (ℓ)	Desilitiro ($d\ell$)	Santilitiro ($c\ell$)	Mililitiro ($m\ell$)
1	☒		
1	☒	☒	
1	☒	☒	☒
	1	☒	
	1	☒	☒
		1	☒

Nsobanukiwe ko:

- a) $d\ell 10 = \ell 1$ c) $m\ell 1\,000 = \ell 1$ e) $m\ell 100 = d\ell 1$
 b) $c\ell 100 = \ell 1$ d) $c\ell 10 = d\ell 1$ f) $m\ell 10 = c\ell 1$



Nsuzuma ngusuzume

- a) $m\ell 90 = c\ell \underline{\hspace{2cm}}$ d) $d\ell 60 = \ell \underline{\hspace{2cm}}$
 b) $d\ell 800 = \ell \underline{\hspace{2cm}}$ e) $m\ell 500 = d\ell \underline{\hspace{2cm}}$
 c) $m\ell 7\,000 = \ell \underline{\hspace{2cm}}$ f) $d\ell 400 = \ell \underline{\hspace{2cm}}$

Nsobanukiwe ko:

- Iyo uhindura ingero z'ibitembabuzi wifashisha imbonerahamwe y'ingero ukandikamo imibare wahawe
- Iyo uva ku rugero runini ujya ku rugero ruto wongeraho zero (0)
- Iyo uva ku rugero ruto ujya ku runini ukuraho zero (0). Ibi bikorwa ku mibare iherwa n'amazeru gusa.

Imyitozo



Hindura mu rugero wabajijwe

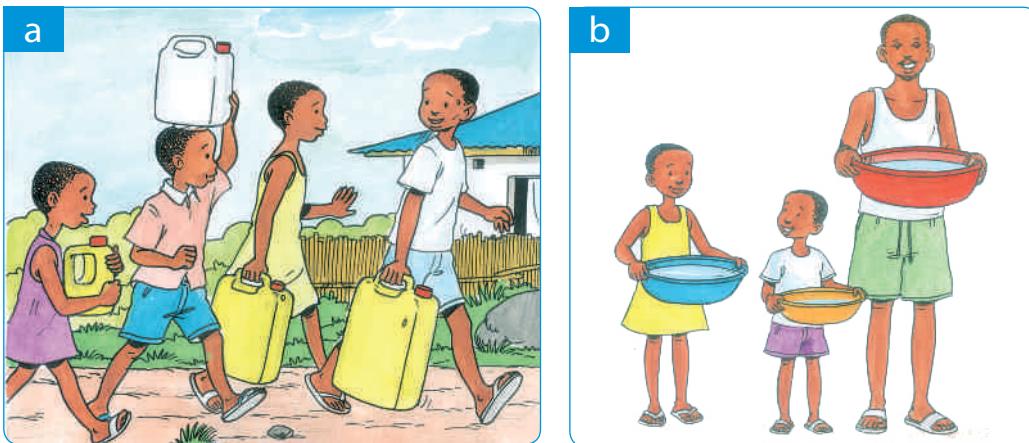
- | | |
|--|---|
| a) $\text{cl} \ 400 = \text{l} \ \underline{\hspace{2cm}}$ | d) $\text{ml} \ 3500 = \text{cl} \ \underline{\hspace{2cm}}$ |
| b) $\text{dl} \ 130 = \text{l} \ \underline{\hspace{2cm}}$ | e) $\text{dl} \ 4 \ \text{ml} \ 9 = \text{ml} \ \underline{\hspace{2cm}}$ |
| c) $\text{dl} \ 56 \ \text{cl} \ 8 = \text{ml} \ \underline{\hspace{2cm}}$ | f) $\text{l} \ 2 \ \text{ml} \ 9 = \text{ml} \ \underline{\hspace{2cm}}$ |

7.5 Kugereranya ingero z'ibitembabuzi kuva kuri l kugera kuri ml

- a. Kugereranya ingero z'ibitembabuzi uterura

Igikorwa cya 1

Mwitegerezze aya mashusho, muvuge ibyo muyabonaho.



Igikorwa cya 2

Muterure ibivomesho bitandukanye. Uteruye ikintu age agereranya abwire bagenzi be litiro z'amazi ateruye mubyandike hanyuma mubiganireho.

Igikorwa cya 3

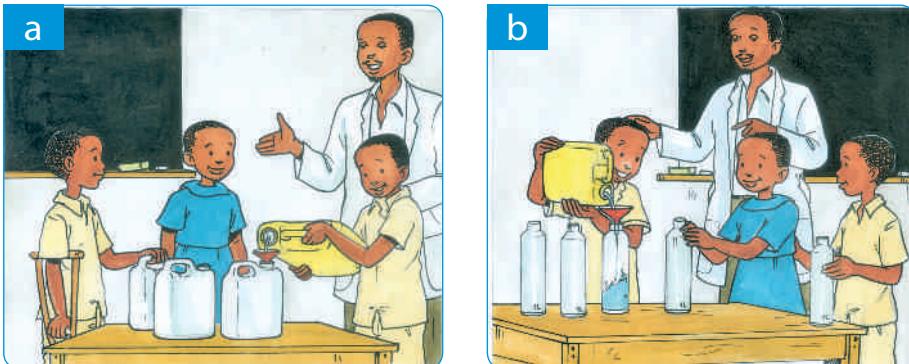
Mugereranye muvuge umubare w'ibirahuri byuzuye mwavana mu bintu bikurikira:

- $\text{ml} \ 500$ z'amazi
- $\text{l} \ 1$ y'amata
- $\text{l} \ 2$ z'umutobe

b. Kugereranya ingero z'ibitembabuzi upima

Igikorwa cya 1

Mwitegerezze aya mashusho, muvuge ibyo muyabonaho.



Igikorwa cya 2

Mukoreshe ijagi ya litiro (ℓ) ndetse n'amazi ari mu ibase mupime maze mwandike ingano y'ibi bikurikira mubigereranye.

- Umubare w'amajagi y'amazi ajya mu kadobo
 - Umubare w'amajagi y'amazi ajya mu kajerekani
 - Umubare w'amajagi y'amazi ajya mu kabase
- a) Ni ikihe gikoresho gitwara amazi make?
 - b) Ni ikihe gikoresho gitwara amazi menshi?
 - b) Sobanura igisubizo watanze
- c. **Kugereranya ingero z'ibitembabuzi ukoresheje <, > na =**

Igikorwa

Muhindure ingero mwifashishije imbonerahamwe y'ingero z'ibitembabuzi mwahawe muhindure mu rugero ruto hanyuma mugereranye mukoresheje >, < na =

- | | |
|--|---|
| a) $\ell 8 \text{ dl } 7$ <input type="text"/> $\text{dl } 25 \text{ dl } 3$ | d) $\text{ml } 900$ <input type="text"/> $\text{dl } 9$ |
| b) $\text{dl } 67$ <input type="text"/> $\text{dl } 670$ | e) $\text{dl } 45 \text{ ml } 7$ <input type="text"/> $\text{dl } 45$ |
| c) $\text{dl } 98$ <input type="text"/> $\ell 9$ | f) $\text{dl } 593$ <input type="text"/> $\text{dl } 94$ |

Nsobanukiwe ko:

- Iyo ugereranya ingero z'ibitembabuzi ubanza guhindura ingero zigereranya mu rugero ruto mu zo wahawe.
- Ukagereranya imibare
- Ugashyiramo kimwe muri ibi bimenyetso by'igereranya (<, > cyangwa =)

Imyitozo



Koresha >, < na = ugereranye

- | | |
|---|--|
| a) $\ell 8 \text{ ml } 549$ [] $\text{dl } 85$ | d) $\text{dl } 987$ [] $\ell 9 \text{ cl } 7$ |
| b) $\text{dl } 96$ [] $\text{cl } 960$ | e) $\text{ml } 890$ [] $\text{dl } 8 \text{ cl } 9$ |
| c) $\text{dl } 3 \text{ ml } 7$ [] $\ell 9$ | f) $\ell 12 \text{ dl } 8$ [] $\text{cl } 129$ |

7.6 Gutondeka ingero z'ibitembabuzi kuva kuri ℓ kugera kuri ml

- a. Gutondeka ingero z'ibitembabuzi uva ku rugero ruto ujya ku rugero runini

Igikorwa

Mutondeke izi ngero z'ibitembabuzi muhereye ku ruto mujya ku runini mukurikije urugero mwahawe

Urugero: $\ell 6 \text{ dl } 9, \text{dl } 89, \text{cl } 465 \rightarrow \text{cl } 465, \ell 6 \text{ dl } 9, \text{dl } 89$

ℓ	dl	cl	ml
6	9	0	
8	9	0	
4	6	5	

- | | |
|---|---|
| a) $\text{dl } 54, \ell 97, \text{cl } 305$ | c) $\ell 5, \text{dl } 94, \text{cl } 9 \text{ ml } 7$ |
| b) $\text{dl } 75, \ell 87, \text{cl } 854$ | d) $\text{cl } 697, \text{dl } 4 \text{ ml } 9, \ell 8$ |



Reka nisuzume



Tondeka ingero z'ibitembabuzi zikurikira uva ku ruto ujya ku runini:

- | | |
|------------------------|-----------------------|
| a) ml 597, l 9, dl 9 | c) cl 3, dl 89, cl 57 |
| b) cl 792, dl 67, ml 9 | d) l 5, dl 9, cl 8 |

Nsobanukiwe ko:

Iyo utondeka ingero z'ibitembabuzi ubanza guhindura ingero zose baguhaye mu rugero ruto. Hanyuma ugatondeka uva ku rugero ruto ujya ku runini wifashishije imibare yazo.

b. Gutondeka ingero z'ibitembabuzi uva ku rugero runini ujya ku rugero ruto

Igikorwa

Mutondeke izi ngero z'ibitembabuzi muhereye ku runini mujya ku ruto mukurikije urugero mwahawe

Urugero: ml 7, l 4 cl 8, dl 9 cl 4 → l 4 cl 8, dl 9 cl 4, ml 7

l	dl	cl	ml
	8	9	7
4	0	8	0
	9	4	0

- | | |
|------------------------|------------------------|
| a) dl 978, l 9, cl 856 | c) cl 589, dl 59, l 5 |
| b) cl 68, dl 49, l 8 | d) ml 746, dl 8, cl 67 |



Reka nisuzume



Tondeka ingero z'ibitembabuzi zikurikira uva ku runini ujya ku ruto.

- | | |
|------------------------|-----------------------|
| a) l 9, dl 21, ml 935 | c) l 2, cl 74, dl 64 |
| b) dl 5, ml 354, cl 95 | d) dl 78, l 4, ml 987 |

Nsobanukiwe ko:

Iyo utondeka ingero z'ibitembabuzi ubanza guhindura ingero zose baguhaye mu rugero ruto. Hanyuma ugatondeka uva ku rugero runini ujya ku ruto wifashishije imibare yazo.

Imyitozo



- 1) Tondeka izi ngero z'ibitembabuzi uhoreye ku rugero ruto ujya ku rugero runini
 - a) dl 95, cl 849, ml 697
 - b) ml 279, dl 96, cl 897
 - c) dl 87, cl 549, ml 879
 - d) dl 67, cl 748, ml 647
- 2) Tondeka izi ngero z'ibitembabuzi uhoreye ku rugero runini ujya ku rugero ruto
 - a) cl 48, dl 95, ml 975
 - b) dl 49, l 8, cl 875
 - c) ml 958, dl 86, l 7
 - d) dl 98, cl 971, ml 624

7.7 Guteranya ingero z'ibitembabuzi kuva kuri l kugera kuri ml

Igikorwa

Koresha imbonerahamwe yo guhindura ingero z'ibitembabuzi, usubize ibibazo ukurikije urugero wahawe.

Urugero: $l\ 8\ ml\ 5 + dl\ 19\ ml\ 4 = ml\ 9\ 909$

l	dl	cl	ml
8	0	0	5
+ 1	9	0	4
9	9	0	9

- a) $dl\ 45 + l\ 3 = cl\ \underline{\hspace{2cm}}$
- b) $l\ 6 + ml\ 3\ 400 = ml\ \underline{\hspace{2cm}}$
- c) $cl\ 450 + ml\ 500 = cl\ \underline{\hspace{2cm}}$
- d) $dl\ 6\ ml\ 6 + l\ 3 = ml\ \underline{\hspace{2cm}}$



Nsuzuma ngusuzume

- a) $\text{dl } 495 + \text{dl } 405 = \text{dl } \underline{\quad}$ c) $\text{dl } 69 + \text{ml } \underline{\quad} = \text{ml } \underline{\quad}$
b) $\text{dl } 87 + \text{ml } 530 = \text{ml } \underline{\quad}$ d) $\text{ml } 970 + \text{dl } 83 = \text{ml } \underline{\quad}$

Nsobanukiwe ko:

Iyo uteranya ingero z'ibitembabuzi, ubanza guhindura ingero zose baguhaye mu rugero wabajije. Warangiza ukabona gutteranya.



Reka nisuzume



Teranya ingero zikurikira maze wuzuze urugero rubura ahabugenewe.

- a) $\text{l } 6 + \text{dl } 7 = \underline{\quad} 67$ c) $\text{dl } 80 + \text{dl } 32 = \underline{\quad} 4$
b) $\text{dl } 77 + \text{ml } 30 = \underline{\quad} 8$ d) $\text{dl } 36 + \text{dl } 40 = \underline{\quad} 4$

Imyitozo



Teranya ingero zikurikira maze wuzuze urugero rubura ahabugenewe.

- a) $\text{l } 6 + \text{dl } 5 = \underline{\quad} 65$ c) $\text{l } 5 + \text{dl } 8 = \underline{\quad} 58$
b) $\text{dl } 845 + \text{ml } 550 = \underline{\quad} 9$ d) $\text{dl } 25 + \text{dl } 750 = \underline{\quad} 10$

7.8 Amahurizo yo gutteranya ingero z'ibitembabuzi kuva kuri l kugera kuri ml

Urugero:

Muhizi yaguze l 1 y'umutobe w'amatunda, dl 500 z'umutobe w'inanasi, dl 10 z'umutobe w'amacunga, na dl 100 z'amazi. Niba yaravanzo iyo mitobe yose n'amazi ubwo yagize l zingahe z'umutobe uvanzo?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
<ul style="list-style-type: none"> - ₩ 1 y'umutobe w'amatunda - ₩ 500 z'umutobe w'inanasi - ₩ 10 z'umutobe w'amacunga - ₩ 100 w'umutobe w'inkeri 	Ingano y'umutobe uvanze muri ₩	Ingano y'umutobe uvanze: ₪ 1 + ₩ 500 + ₩ 10 + ₩ 100 = ₩ 8



Nsuzuma ngusuzume

- 1) Mu rugo dukama ₩ 42 z'amata mu gitondo na ₩ 4 800 nimugoroba. Ubwo dukama ₩ zingahe buri munsi?
- 2) Ku wa mbere Butera yacuruje ₩ 450 z'amavuta naho ku wa kabiri acuruza ₩ 5 500. Ubwo yacuruje ₩ zingahe muri iyo minsi yombi?

Nsobanukiwe ko:

Iyo ukora amahurizo yo guteranya ingero z'ibitembabuzi, ubanza kwerekana ibyo baguhaye mu ihurizo. Ugakurikizaho ibyo bakubaza, ugahindura mu rugero wabajije ukabona gushaka igisubizo.



Reka nisuzume



- 1) Uwera akoresha ₩ 75 z'amazi avomerera imboga ze mu gitondo naho nimugoroba agakoresha ₩ 550. Ubwo ku munsi akoresha amazi angana iki avomerera imboga ze?
- 2) Shaka ingano ya litiro z'amazi dukoresha mu rugo buri munsi niba dukora ibi bikurikira:
 - Guteka: ₩ 200
 - Gukoropa: ₩ 3 000
 - Koza ibyombo: ₩ 60
 - Gukaraba: ₩ 100

Imyitozo



- 1) Ku munsi w 'ikiruhuko Gatoni yameshe imyenda y'ishuri akoresha dl 200, mukuru we Mutoni akoresha dl 400 naho ababyeyi babo bakoresha l 100. Ubwo urwo rugo rwameshesheje amazi angana iki?
- 2) Ku wa gatanu sitasiyo ya lisansi yacuruje l 658 naho ku wa gatandatu icuruza dl 2 320. Shaka umubare wa l yacuruje muri iyo minsi ibiri.

7.9 Gukuramo ingero z'ibitembabuzi kuva kuri l kugera kuri ml

Igikorwa

Koresha imbonerahamwe y'ingero z'ibitembabuzi, usubize ibibazo ukurikije urugero wahawe.

Urugero: $\text{dl} 789 - \text{l} 7 \text{ dl} 9 = \text{dl} 80 = \text{dl} 8$

l	dl	dl	ml
7	8	9	
- 7	0	9	
0	8	0	

- a) $\text{dl} 321 - \text{dl} 3 = \text{dl} \underline{\quad}$
- b) $\text{dl} 46 - \text{l} 2 = \text{dl} \underline{\quad}$
- c) $\text{l} 8 - \text{dl} 75 = \text{dl} \underline{\quad}$
- d) $\text{dl} 47 \text{ ml} 8 - \text{dl} 3 = \text{ml} \underline{\quad}$



Nsuzuma ngusuzume

- a) $\text{dl} 89 - \text{dl} 795 = \text{ml} \underline{\quad}$
- b) $\text{l} 37 - \text{dl} 295 = \text{dl} \underline{\quad}$
- c) $\text{dl} 98 - \text{l} 7 \text{ dl} 80 = \text{dl} \underline{\quad}$
- d) $\text{l} 7 - \text{dl} 58 = \text{ml} \underline{\quad}$

Nsobanukiwe ko:

Iyo ukuramo ingero z'ibitembabuzi ubanza guhindura ingero zose baguhaye mu rugero wabajijwe.



Reka nisuzume



- a) $\text{dl } 72 - \text{dl } 579 = \underline{\quad} 141$ c) $\text{dl } 665 - \text{l } 6 = \underline{\quad} 65$
b) $\text{l } 7 - \text{dl } 4 = \underline{\quad} 66$ d) $\text{ml } 789 - \text{dl } 7 = \underline{\quad} 89$

Imyitozo



- a) $\text{l } 4 - \text{dl } 98 = \underline{\quad} 302$ c) $\text{dl } 56 - \text{dl } 5 = \underline{\quad} 6$
b) $\text{dl } 6 - \text{dl } 6 = \underline{\quad} 54$ d) $\text{ml } 98 - \text{dl } 6 = \underline{\quad} 38$

7.10 Amahurizo yo gukuramo ingero z'ibitembabuzi kuva kuri l kugera kuri ml

Urugero:

Ingabire yari afite $\text{dl } 100$ z'umutobe, ahaho inshuti ye Buggingo $\text{dl } 30$. Ubwo yasigaranye dl zingahe?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
<ul style="list-style-type: none">- Umutobe wose ni $\text{dl } 100 = \text{ml } 1\,000$- Umutobe watanzwe ni $\text{dl } 3 = \text{ml } 300$	Ingano y'umutobe yasigaranye: $\text{dl } 100 - \text{dl } 30 = \text{ml } 1000 - \text{ml } 300 = \text{ml } 700$	Ingano y'umutobe yasigaranye: $\text{dl } 100 - \text{dl } 30 = \text{ml } 1000 - \text{ml } 300 = \text{ml } 700$



Nsuzuma ngusuzume

- 1) Mu ijerekani irimo $\text{l } 20$ z'amazi bavanyeho $\text{dl } 169$ barayatekesha. Ubwo muri iyo jerekani hasigayemo dl zingahe?

- 2) Ku munsi w'ibirori twateguye dl 3 000 z'umutobe wo kuzimanira abashyitsi. Nyuma y'ibirori twasanze twasigaranye l 40. Ubwo abo bashyitsi twabazimaniye l zingahe z'umutobe?

Nsobanukiwe ko:

Iyo ukora amahurizo yo gukuramo ingero z'ibitembabuzi ubanza kwerekana mu ihurizo ibyo baguhaye.
Ugakurikizaho ibyo bakubaza, ugahindura mu rugero bakabajije, ugakuramo ibyo baguhaye.



Reka nisuzume



- 1) Navomye l 60 z'amazi mesheshaho dl 375. Ubwo nasigaranye dl zingahe?
- 2) Kugira ngo Mugabo abumbe amatafari azubakisha igikoni akeneye l 225 z'amazi. Niba yaratangiye kuyavoma yageza kuri dl 1 750 amazi akabura ubwo arabura amazi angana iki ngo abumbe ayo matafari?

Imyitozo



- 1) Mu rugo dukoresha l 145 z'amazi buri munsi. Niba dufite dl 950 gusa, ubwo turabura l zingahe kugira ngo tugire amazi ahagije ku munsi ukurikira?
- 2) Hirwa yavomye dl 750 z'amazi azisuka mu ndobo ebyiri. Imwe yibagirwa kuyipfundikira ya mazi aratokorwa barayamena. Niba amazi bamennye yari l 38 ubwo yasigaranye l zingahe?

7.11 Gukuba ingero z'ibitembabuzi kuva kuri ℓ kugera kuri ml n'umubare ushyitse

Igikorwa

Koresha imbonerahamwe yo guhindura ingero z'ibitembabuzi, usubize ibibazo ukurikije urugero wahawe.

Urugero: $\ell 1 cl 80 \times 5 = dl \underline{\quad}$

ℓ	dl	cl	ml
1	0		
+	8	0	
1	8		
\times	5		
9	0		

$$\ell 1 cl 80 \times 5 = dl 90$$

- a) $dl 895 \times 4 = \ell \underline{\quad}$ c) $ml 755 \times 8 = cl \underline{\quad}$
b) $cl 472 \times 5 = dl \underline{\quad}$ d) $dl 65 \times 6 = \ell \underline{\quad}$



Nsuzuma ngusuzume

- a) $dl 654 \times 7 = dl \underline{\quad}$ c) $\ell 55 \times 3 = \ell \underline{\quad}$
b) $cl 565 \times 2 = dl \underline{\quad}$ d) $ml 825 \times 8 = dl \underline{\quad}$

Nsobanukiwe ko:

Iyo ukuba ingero z'ibitembabuzi ubanza guhindura ingero zose baguhaye mu rugero wabajije warangiza ukabona gukuba.



Reka nisuzume



- a) $dl 895 \times 4 = \ell \underline{\quad}$ c) $ml 755 \times 8 = cl \underline{\quad}$
b) $cl 472 \times 5 = dl \underline{\quad}$ d) $dl 65 \times 6 = \ell \underline{\quad}$

Imyitozo



Uzuza:

- $\text{dl } 654 \times 9 = \text{dl } \underline{\hspace{2cm}}$
- $\text{dl } 565 \times 8 = \text{dl } \underline{\hspace{2cm}}$
- $\text{l } 185 \times 4 = \text{l } \underline{\hspace{2cm}}$
- $\text{dl } 125 \times 8 = \text{l } \underline{\hspace{2cm}}$

7.12 Amahurizo yo gukuba ingero z'ibitembabuzi n'umubare ushyitse

Urugero:

Gatesi anywa $\text{ml } 2500$ z'amazi buri munsi. Shaka umubare wa l z'amazi anywa mu minsi 2.

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Amazi Gatesi anywa buri munsi ni $\text{ml } 2\ 500$	Ingano y'amazi Gatesi anywa mu minsi ibiri	Ingano y'amazi Gatesi anywa mu munsi ibiri: $\text{ml } 2\ 500 \times 2 = \text{ml } 5\ 000 = \text{l } 5$



Nsuzuma ngusuzume

- Ireme yavomye inshuro 4 avomesha ijerekani ya $\text{l } 15$. Ubwo yavomye amazi angana iki yose hamwe?
- Inka ya Gashumba ikamwa $\text{l } 32$ buri munsi. Shaka ingano y'amata iyo nka ikamwa mu minsi 5.

Nsobanukiwe ko:

Iyo ukora amahurizo yo gukuba ingero z'ibitembabuzi ubanza kwerekana ibyo baguhaye mu ihurizo. Ugakurikizaho ibyo bakubaza, ugakuba ibyo baguhaye. Hanyuma igikubo ubonye ukagihindura mu rugero bakabajije.



Reka nisuzume



- 1) Mu rugo turi abantu 8. Niba buri wese anywa dl 500 z'amata buri munsi, twese tunywa amata angana iki?
- 2) Shaka ingano ya lisansi Uwineza akoresha mu minsi 6 niba buri munsi akoresha dl 750.

Imyitozo



- 1) Shaka ℓ z'amazi Uwingabire akoresha mu minsi 6 niba buri munsi akoresha dl 250.
- 2) Buri munyeshuri anywa uducupa 3 twa dl 50 tw'amazi. Abanyeshuri 9 mu minsi 2 banya amazi angana iki?

7.13 Kugabanya ingero z'ibitembabuzi kuva kuri ℓ kugera kuri ml

Igikorwa cya 1

Itegereze urugero, usobanure ibyakozwe.

Urugero:

$$\text{dl} \ 468 : 6 = \text{dl} \ \underline{\quad}$$

$$\begin{array}{r}
 4680 \quad | \quad 6 \\
 - 42 \\
 \hline
 048 \\
 - 48 \\
 \hline
 000 \\
 - 0 \\
 \hline
 0
 \end{array}$$

	ℓ	dl	cl	ml
4	6	8	0	

$$\text{dl} \ 4680 : 6 = \text{dl} \ 780$$

Igikorwa cya 2

Koresha imbonerahamwe yo guhindura ingero z'ibitembabuzi usubize ibibazo ukurikije urugero wahawe mu gikorwa cya 1.

- $\text{ml} \ 1800 : 9 = \text{dl} \ \underline{\quad}$
- $\text{dl} \ 680 : 8 = \text{ml} \ \underline{\quad}$
- $\text{cl} \ 1484 : 7 = \text{dl} \ \underline{\quad}$
- $\ell \ 7890 : 6 = \ell \ \underline{\quad}$



Nsuzuma ngusuzume

- a) $\text{dl } 6\ 900 : 5 = \text{l } \underline{\quad}$
 b) $\text{dl } 7\ 280 : 4 = \text{l } \underline{\quad}$
 c) $\text{cl } 86\ \text{ml } 4 : 3 = \text{ml } \underline{\quad}$
 d) $\text{ml } 4\ 640 : 2 = \text{cl } \underline{\quad}$

Nsobanukiwe ko:

Iyo ugabanya ingero z'ibitembabuzi ubanza guhindura
ingero zose baguhaye mu rugero wabajije warangiza
ukabona kugabanya.



Reka nisuzume



- a) $\text{l } 4\ \text{cl } 8 : 2 = \underline{\quad} 204$
 b) $\text{dl } 1\ 830 : 3 = \underline{\quad} 61$
 c) $\text{cl } 2\ 460 : 4 = \underline{\quad} 6\ 150$
 d) $\text{ml } 8\ 965 : 5 = \underline{\quad} 1\ 793$

Imyitoto



- a) $\text{ml } 6960 : 6 = \underline{\quad} 116$
 b) $\text{dl } 9\ \text{ml } 80 : 7 = \underline{\quad} 14$
 c) $\text{cl } 48\ \text{ml } 8 : 8 = \underline{\quad} 61$
 d) $\text{dl } 63\ \text{ml } 90 : 9 = \underline{\quad} 71$

7.14 Amahurizo yo kugabanya ingero z'ibitembabuzi n'umubare ushyitse

Urugero:

Wakoresha utujerekani tungahe tujyamo $\text{l } 3$ z'amazi
kugira ngo wuzuze ingunguru ikyamo $\text{l } 225$ z'amazi?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
<ul style="list-style-type: none"> - Ingano y'akajerekani kamwe ni $\text{l } 3$ - Ingano y'ingunguru yuzuye amazi ni $\text{l } 225$ 	Umubare w'utujerekani	$\begin{aligned} \text{Umubare} \\ \text{w'utujerekani} \\ = 225 : 3 = 75 \\ = \text{Utujerekani } 75 \end{aligned}$



Nsuzuma ngusuzume

- 1) Mu ijerekani ya dl 500 z'amazi wakuramo utujerekani tungahe tujyamo l 5 kamwekamwe?
- 2) Gabanya ku buryo bungana dl 800 z'umutobe abana 8. Buri wese uzamuha l zingahe?

Nsobanukiwe ko:

Iyo ukora amahurizo yo kugabanya ingero z'ibitembabuzi ubanza kwerekana ibyo baguhaye mu ihurizo, ugakurikizaho ibyo bakubaza, ukagabanya ibyo baguhaye hanyuma ikigabanyo ubonye ukaghindura mu rugero bakabajijwe.



Reka nisuzume



- 1) Gabanya ku buryo bungana dl 450 z'amavuta ingo 9. Buri rugo uzaruha l zingahe?
- 2) Muhoza ateka l 4 z'amavuta mu minsi 8. Shaka dl z'amavuta ateka buri munsi.

Imyitozo

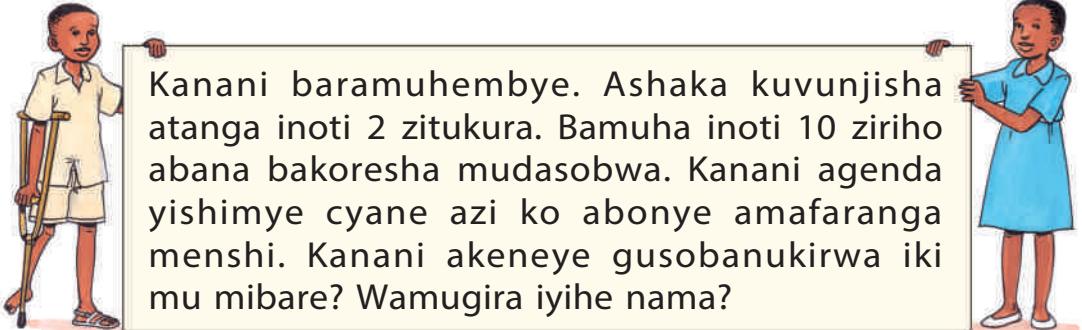


- 1) Gabanya ku buryo bungana dl 900 z'amazi abana 9. Buri mwana uzamuha l zingahe?
- 2) Kamariza arashaka kugabanya ku buryo bungana dl 56 z'amata abana be 7. Buri mwana azamuha l zingahe?

7.15 Isuzuma risoza umutwe wa 7

- 1) Hindura mu rugero wabajijwe
 - a) $\ell 4 = dl \underline{\hspace{2cm}}$
 - b) $dl 65 = ml \underline{\hspace{2cm}}$
 - c) $ml 7500 = dl \underline{\hspace{2cm}}$
 - d) $\ell 7 cl 79 = dl \underline{\hspace{2cm}}$
- 2) Koresha <,> na = ugereranye izi ngero z'ibitembabuzi.
 - a) $dl 79 \underline{\hspace{2cm}} ml 7908$
 - b) $dl 27 \underline{\hspace{2cm}} cl 16$
 - c) $\ell 9 \underline{\hspace{2cm}} dl 79$
 - d) $cl 546 \underline{\hspace{2cm}} \ell 7$
- 3) Tondeka uhereye ku rugero ruto ujya ku runini
 $dl 72, cl 807, \ell 9$
- 4) Tondeka uhereye ku rugero runini ujya ku ruto
 - a) $dl 75, \ell 7 cl 7, dl 3 ml 6$
 - b) $dl 46, \ell 9 cl 15, ml 234$
- 5) Kora imyitozo ikurikira
 - a) $dl 45 ml 7 + cl 367 = ml \underline{\hspace{2cm}}$
 - b) $ml 375 \times 8 = \ell \underline{\hspace{2cm}}$
 - c) $\ell 5 ml 7 + dl 43 = ml \underline{\hspace{2cm}}$
 - d) $dl 693 : 7 = ml \underline{\hspace{2cm}}$
- 6) Amahurizo
 - a) Navomye $\ell 69$ naho mukuru wange avoma $dl 950$. Yandushije cl zingahe?
 - b) Resitora ikoresha $cl 225$ z'amavuta buri munsi. Shaka ℓ z'amavuta ikoresha mu minsi 8.
 - c) Nasutse $\ell 67$ z'amazi mu ngunguru mukuru wange asukamo $dl 1330$. Ubwo twembi twasutsemo ℓ zingahe?
 - d) Gabanya ku buryo bungana $cl 7500$ za lisansi imodoka 5. Buri modoka uzayishyiramo ℓ zingahe za lisansi?
 - e) Abana 5 ba lneza banywa $ml 850$ z'amata umwumwe buri munsi. Shaka cl z'amata banywa buri munsi.

Amafaranga y'u Rwanda kuva ku F 1 kugera ku F 5 000



8.1 Ibiranga amafaranga y'u Rwanda n'agaciro kayo kugera ku F 5 000

Igikorwa cya 1

Mwitegerezе ibiceri bigize F y'u Rwanda muvuge agaciro kabyo ndetse n'ibibiranga



Nsobanukiwe ko:

Ibiceri by'amafaranga y'u Rwanda birangwa n'ibikurikira:

Igiceri cya F 1

Uruhande rumwe

- Ibara rya feza
- Ikirangantego
- Umubare 1

Urundi ruhande

- Ibara rya feza
- Ihundo ry'ingano

Igiceri cya F 5

Uruhande rumwe	Urundi ruhande
- Ibara ry'umuringa	- Ibara ry'umuringa
- IKirangantego	- Ikawa
- Umubare 5	

Igiceri cya F 10

Uruhande rumwe	Urundi ruhande
- Ibara ry'umuringa	- Ibara ry'umuringa
- IKirangantego	- Insina iriho igitoki
- Umubare 10	

Igiceri cya F 20

Uruhande rumwe	Urundi ruhande
- Ibara rya feza	- Ibara rya feza
- IKirangantego	- Ishami ry'igiti k'icyayi.
- Umubare 20	

Igiceri cya F 50

Uruhande rumwe	Urundi ruhande
- Ibara rya feza	- Ibara rya feza
- IKirangantego	- Ikigori
- Umubare 50	

Igiceri cya F 100

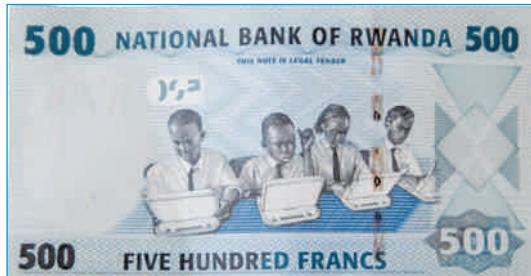
Uruhande rumwe	Urundi ruhande
- Ibara rya feza rizengurutse iry'umuringa	- Ibara rya feza rizengurutse iry'umuringa
- IKirangantego	- Agaciro k'igiceri
- Umubare 100	cy'amarafaranga 100

Igikorwa cya 2

Mwitegerezze ibiceri bigize amafaranga y'u Rwanda, mutahure ikirango kiboneka ku biceri byose.

Igikorwa cya 3

Mwitegerezé inoti zigize F y'u Rwanda, muvuge agaciro kazo n'ibiziranga.



Nsobanukiwe ko:

- Inoti zigize amafaranga y'u Rwanda ari 4 zifite agaciro gakurikira F 500, F 1 000, F 2 000 na F 5 000.
- Inoti ifite agaciro gato ni iya F 500.
- Inoti ifite agaciro kanini ni iya F 5 000.
- Ibiranga inoti z'amafaranga y'u Rwanda ari ibi:

Inoti ya F 500	
Uruhande rumwe	Urundi ruhande
<ul style="list-style-type: none"> - Ikirangantego cya Leta y'u Rwanda - Ibara ry'ubururu bukeye - Inka ebyiri 	<ul style="list-style-type: none"> - Ikirangantego cya Leta y'u Rwanda - Ibara ry'ubururu bukeye - Abana bane bakoresha mudasobwa
Inoti ya F 1 000	
Uruhande rumwe	Urundi ruhande
<ul style="list-style-type: none"> - Ikirangantego cya Leta y'u Rwanda - Ibara ry'ubururu - Inzu ndangamurage y'u Rwanda ihagazeho inuma 	<ul style="list-style-type: none"> - Ikirangantego cya Leta y'u Rwanda - Ibara ry'ubururu - Inkende
Inoti ya F 2 000	
Uruhande rumwe	Urundi ruhande
<ul style="list-style-type: none"> - Ikirangantego cya Leta y'u Rwanda - Umunara wubatse ku kirunga cya Kalisimbi - Ibara ry'umwura - Udutoako dukoze muri mpandeshatu n'impande esheshatu - Agaseke 	<ul style="list-style-type: none"> - Ikirangantego cya Leta y'u Rwanda - Ikawa zumye zitonoye - Agatako ka nyamuraza
Inoti ya F 5 000	
Uruhande rumwe	Urundi ruhande
<ul style="list-style-type: none"> - Ingagi iri mu migano - Ibara ry'umutuku - Ikirangantego cya Leta y'u Rwanda 	<ul style="list-style-type: none"> - Inkangara n'agaseke - Agatako k'inyegamo - Ibara ry'umutuku - Ikirangantego cya Leta y'u Rwanda

Igikorwa cya 4

Mwitegerezé inoti zigize amafaranga y'u Rwanda maze mutahure ikirango kiboneka ku noti zose.



Nsuzuma ngusuzume

Itegerezé inoti n'ibiceri bigize amafaranga y'u Rwanda, utahure ikirango kiboneka hose haba ku noti ndetse no ku biceri.

Imyitoto



- 1) Ibiceri byose bigize amafaranga y'u Rwanda biri mu mabara abiri. Yavuge.
- 2) Sobanura itandukaniro riri hagati y'ibiceri n'inoti
- 3) Vuga muri make iby'ingenzi biranga inoti zigize amafaranga y'u Rwanda.

8.2 Akamaro k'amafaranga

Igikorwa cya 1

Mwitegerezé amashusho, muvuge ibyo tuyabonaho.



Igikorwa cya 2

Usibye ibyo mwabonye ku mashusho, muvuge akandi kamaro muzi k'amafaranga.



Nsuzuma ngusuzume

Mukore urutonde rw'ibyo mwakora mufite amafaranga 1 000.

Nsobanukiwe ko:

- Amafaranga tuyagura ibyo dukeneye byose nk'ibiribwa, ibinyobwa n'imyambaro. Amafaranga tuyishyura serivisi zitandukanye nk'ubwishingizi bw'ubuzima, umutekano, isuku, ibyangombwa ndetse n'abadukoreye akazi.
- Amafaranga kandi tuyagura imitungo itandukanye nk'inzu, ubutaka, amatungo, imodoka n'ibikoresho bitandukanye.

Igikorwa cya 3

Muganire ku bibazo bikurikira buri wese atange igitekerezo hanyuma muze guhitamo ibitekerezo 5 byiza kurusha ibindi

- a) Ufite F 2 000 wayagura iki?
- b) Ufite F 5 000 wayagura iki?

Imyitozo

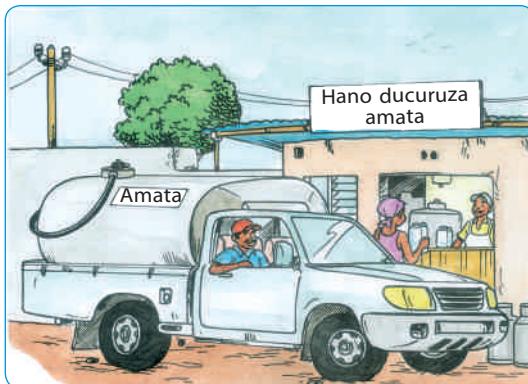


- 1) Tanga ingero za serivisi zishyurwa amafaranga.
- 2) Sobanura akamaro k'amafaranga ku muryango wawe.

8.3 Uko amafaranga aboneka

Igikorwa cya 1

Mwitegerezze amashusho, muvuge ibyo muyabonaho.





Nsuzuma ngusuzume

Vuga ubundi buryo butagaragaye ku mashusho umuntu yabonamo amafaranga.

Nsobanukiwe ko:

abantu bavana amafaranga mu mirimo ikurikira:

- | | |
|----------------------|---------------|
| - Ubuhinzi | - Ubucuruzi |
| - Ubwikorezi | - Ubukorikori |
| - Imirimo yo mu biro | - Ubworozi |
| - Ubukerarugendo | - Amarushanwa |

Igikorwa cya 2

Musobanure uko imiryango yanyu ibona amafaranga.



Reka nisuzume



Wakora iki kugira ngo ubone amafaranga wunganire umuryango wawe kugira ngo ubone ibyo ukeneye?

Igikorwa cya 3

Muganire ku buryo buboneye bwo gukoresha amafaranga

Imyitozo



- 1) Tanga ingero zimirimo iwanyu bakora ibazanira amafaranga.
- 2) Vuga zimwe mu ngeso mbi tugomba kwirinda zishobora gutuma uzikora abona amafaranga.

8.4 Kuvunja amafaranga y'u Rwanda

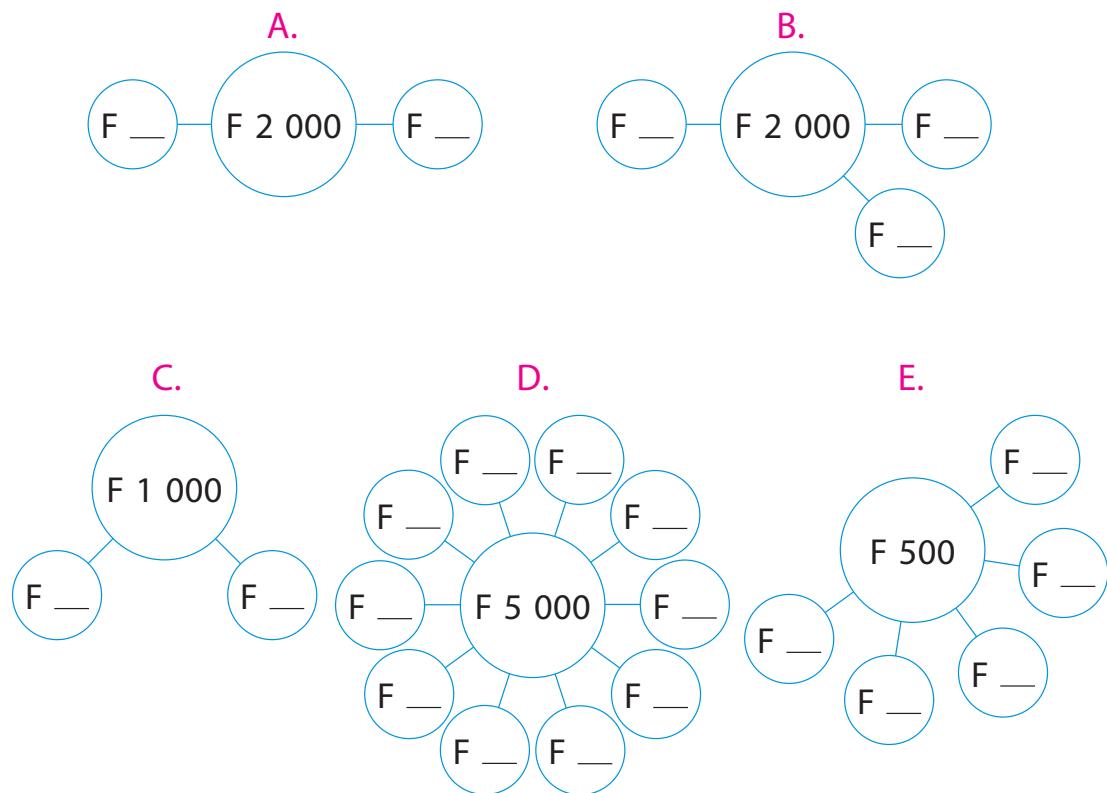
Imyitozo



- 1) Mwifashishe ibiceri n'inoti mukore iyi myitozo
 - a) Inoti ya F 1 000 = Inoti ya F ___ + Inoti ya F ___

- b) Inoti ya F 2 000 = Inoti ya F ___ + Inoti ya F ___
- c) Inoti ya F 2 000 = Inoti ya F ___ + Inoti ya F ___
- d) Inoti ya F 5 000 = Inoti ya F ___ + Inoti ya F ___ + Inoti ya F ___
- e) Inoti ya F 5 000 = Inoti ya F ___ + Inoti ya F ___

2) Mwuzuze ababugenewe n'amafaranga abura.



3) Uzuza n'amafaranga akwiye

- a) $F 3 000 = F 1 000 + F 1 000 + F __$
- b) $F 4 000 = F 2 000 + F 1 000 + F 500 + F __$
- c) $F 2 000 = F 1 000 + F __ + F 500$
- d) $F 5 000 = F 1 000 + F 2 000 + F __ + F 1 000$
- e) $F 3 500 = F 2 000 + F __ + F 1 000$

8.5 Amahurizo yo kuvunja amafaranga y'u Rwanda

Urugero:

Munezero bamuhembye inoti 3 za F 1 000 n'izindi 2 za F 500. Ubwo bamuhembye F angahe yose hamwe?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Inoti 3 za F 1 000	Umubare wa F bamuhembye	$F \text{ bamuhembye}$ $\text{inoti } 3 \times F 1\,000 = F 3\,000$ $\text{inoti } 2 \times F 500 = F 1\,000$ $= F 3\,000 + F 1\,000$ $= F 4\,000$
Inoti 2 za F 500		



Nsuzuma ngusuzume

- 1) Rugira yatanze inoti 2 za F 2 000 n'izindi noti 2 za F 500 bamuha umupira wo kwifubika. Ubwo uwo mupira wo kwifubika yawuguze F angahe?
- 2) Naguze ikayi nini n'ikaramu nishyura inoti 2 za F 1 000 n'indi imwe ya F 500. Ubwo nabiguze F angahe?

Nsobanukiwe ko:

Iyo ukora amahurizo yo kuvunja amafaranga ubanza kwerekana ibyo baguhaye mu ihurizo. Ugakurikizaho ibyo bakubaza, ugakuba umubare w'inoti cyangwa ibiceri n'agaciro kabyo. Hanyuma ugateranya ibikubo ubonye kugira ngo ubone igisubizo.



Reka nisuzume

- 1) Nagiye kwa masenje mu biruhuko ngiye kuvayo ampa inoti 3 za F 1 000 n'inoti 1 ya F 2 000. Ubwo masenje yampaye F angahe?
- 2) Mugabo yishyuye Uwera ibiceri 4 bya F 100 n'inoti 8 za F 500. Ubwo yari amurimo F angahe?

Imyitozo



- 1) Mu rugo twaguze inkoko twishyura inoti 2 za F 2 000 n'inoti 3 za F 500. Ubwo twayiguze F angahe?
- 2) Iranzi yahembwe inoti 1 ya F 2 000, inoti 2 za F 500 n'inoti 2 za F 1 000. Shaka umubare wa F Iranzi yahembwe.



Nsuzuma ngusuzume

Vuga umubare w'inoti cyangwa ibiceri wakwishiura kugira ngo ugure ibintu bikurikira batakugaruriye:

- a) Kg 1 y'isukari ku F 1 200
- b) Imiti 2 y'isabune ku F 900
- c) I 1 y'amavuta ku F 1 800
- d) Igitabo ku F 4 500
- e) Ishati ku F 2 500
- f) Inkweto ku F 3 500

8.6 Amahurizo yo guteranya amafaranga y'u Rwanda

Urugero:

Tunga yaguze igitabo ku F 3500 n' amakayi ku F 1 200. Byose yabiguze F angahe?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Igiciro k'igitabo ni F 3 500 Igiciro cy'amakayi ni F 1 200	F yabiguze byose	Byose yabiguze $F = F 3\ 500 + F 1\ 200$ $= F 4\ 700$



Nsuzuma ngusuzume

- 1) Rukundo yaguze ishati ku F 1 500 bamugarurira F 500. Ubwo yari yishyuye F angahe?

- 2) Ishimwe yaguze igikapu cyo gutwaramo ibitabo ku F 3 500 n'amakaramu ya F 900. Byose yabiguze F angahe?

Nsobanukiwe ko:

Iyo ukora amahurizo yo guteranya amafaranga ubanza kwerekana ibyo baguhaye mu ihurizo. Ugakurikizaho ibyo bakubaza. Hanyuma ugateranya ibyo baguhaye kugira ngo ubone igisubizo.



Reka nisuzume



- 1) Mutabazi yahaye abana be 4 ari bo Ingabire, Gato, Mucyo na Bwiza amafaranga yo kugura ibikoresho by'ishuri ku buryo bukurikira:
- Ingabire yamuhaye F 750
 - Gato yamuhaye F 1 450
 - Mucyo yamuhaye F 1 150
 - Bwiza yamuhaye F 950
- Bose hamwe yabajahaye F angahe?
- 2) Ku munsi w'isabukuru y'amavuko yange banguriye ishati ya F 1 500, isengeri ya F 500, ipantaro ya F 2 000 n'inkweto zo kogeramo za F 1 000. Byose hamwe babiguze F angahe?

Imyitozo



- 1) Naguze irangi ku F 2 500 na I 1 ya peteroli yo kurivanga ku F 970. Byose hamwe nabiguze F angahe?
- 2) Uwamahoro yampembye ibisuguti bigura F 1 200, bombo za F 500 n'umutobe w'imbuto wa F 800. Shaka agaciro k'ibihembo byose nahembwe.
- 3) Abaturanyi ba Mbabazi bamutwerereye umwe F 3 400 naho undi F 1 300. Bombi bamutwerereye F angahe?

8.7 Amahurizo yo gukuramo amafaranga y'u Rwanda

Urugero:

Uwingabire yari afite F 5 000 aguraho kg 1 y'inyama ku F 2 500 na l 1 y'amavuta ku F 1 900. Yasigaranye F angahe?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
1) Umubare wa F yose ni F 5 000	- Ayo Byose hamwe yabiguze:	Byose hamwe yabiguze: $F 2\ 500 + F 1\ 900 = F 4\ 400$
2) Igiciro k'inyama ni F 2 500	- Ayo	Yasigaranye: $F 5\ 000 - F 4\ 400 = F 600$
3) Igiciro cy'amavuta ni F 1 900	yasigaranye	



Nsuzuma ngusuzume

- 1) Kangabe yari afite inoti ya F 1 000 aguraho kg 1 y'umunyu ku F 400 n'umuti umwe w'isabune ku F 450. Bamugaruriye F angahe?
- 2) Uwitonze afite F 4 500 kandi arashaka kugura ipantaro igura F 5 000. Ubwo arabura F angahe?

Nsobanukiwe ko:

Iyo ukora amahurizo yo gukuramo amafaranga ubanza kwerekana ibyo baguhaye mu ihurizo, ugakurikizaho ibyo bakubaza ugakuramo ibyo baguhaye.



Reka nisuzume

- 1) Kaneza bamutumye kugura indobo nini yo gushyiramo amazi bamuha F 5 000. Agezeyo yishyuye bamugarurira F 900. Ubwo iyo indobo yayiguze F angahe?
- 2) Nagiye guhaha mfite F 4 500. Ngeze mu isoko mpahisha F 3 900. Ubwo nasigaranye F angahe?

Imyitozo



- 1) Mwarimu yagiye kugura ingwa za F 3 750 maze yishyura inoti ya F 5 000. Bamugaruriye F angahe?
- 2) Ku munsi w'amanota nabaye uwa mbere data ampemba F 5 000 ngo nzayagure icyo nshaka maze njyana na mama mu iguriro ry'ibitabo angurira igitabo k'imibare ku F 3 900. Ubwo nasigaranye F angahe?

8.8 Amahurizo yo gukuba amafaranga y'u Rwanda n'umubare ushyitse

Urugero:

Kabayiza yaguze amagi 56 ku F 80 rimwerimwe. Yose hamwe yayaguze F angahe?

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
1. Umubare w'amagi ni 56	F yaguzwe amagi yose	F yaguzwe amagi yose: $56 \times F 80 = F 4 480$
2. Igiciro k'igi rimwe ni F 80		



Nsuzuma ngusuzume

- 1) Uwagutuma guhaha wakwishyura F angahe kuri buri bicuruzwa bikurikira:
 - a) kg 4 z'isukari ku F 1 200 buri kg 1
 - b) l 2 z'amavuta ku F 1 800 buri l 1
 - c) Imiti y'isabune 8 ku F 500 umuti umwe
 - d) Amaseri 2 y'ibitoki ku F 1 700 iseri rimwe
 - e) kg 4 z'umuceri ku F 1 250 kg imwe.
- 2) Niba igi rimwe rirangurwa F 85, ubwo amagi 27 arangurwa F angahe?



Reka nisuzume



- 1) Marume yaguze amagi 119 ku F 80 igi rimwe. Ubwo yose yayaguze F angahe?
- 2) Niba ikayi imwe igura F 250 ubwo amakayi 8 agura F angahe?
- 3) Ngiye kugura I 3 z'amavuta nsanga imwe bayigura F1400 maze nishyuye bangarurira F 800. Ubwo nagiye kuyagura mfite F angahe?

Imyitozo



- 1) Niba m 1 y'ijyora igura F 1 600, ubwo m 6 z'iryo jyora zigura F angahe?
- 2) Gicanda yaguze fanta 12 ku F 350 icupa rimwe. Shaka umubare wa F yishyuye yose hamwe.
- 3) Umutoza w'ikipe afite abakinnyi 18. Yaguriye buri mukinnyi icupa ry'umutobe. Niba icupa rimwe ry'umutobe rigura F 250 ubwo yishyuye F angahe yose hamwe?

8.9 Amahurizo yo kugabanya amafaranga y'u Rwanda n'umubare ushyitse

Urugero:

Muhoza yari afite F 5 000 aguramo kg 8 z'ibishyimbo. Shaka ikiguzi cya kg imwe y'ibishyimbo.

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
1) Ingano y'ibishyimbo byagurishijwe ni kg 8	Igiciro cya kg 1	Igiciro cya kg 1 = F 5 000 : 8 = F 625
2) Amafaranga yaguze ibishyimbo ni F 5 000		



Nsuzuma ngusuzume

- 1) Gabanya ku buryo bungana F 4 800 abakozi 4. Buri wese uzamuha F angahe?
- 2) Gahima yahembye abana be 5 ku buryo bungana. Buri wese yamuhembye F angahe niba yarakoresheje F 4 500?

Nsobanukiwe ko:

Iyo ukora amahurizo yo kugabanya amafaranga ubanza kwerekana ibyo baguhaye mu ihurizo. Ugakurikizaho ibyo bakubaza. Hanyuma ukagabanya ibyo baguhaye kugira ngo ubone igisubizo.



Reka nisuzume



- 1) Naguze amakaye 4 ku F 4 400. Ubwo buri kaye nayiguze ku F angahe?
- 2) Abayede 3 bahembwe F 3 900 yo kugabana ku buryo bungana. Ubwo buri muyede yahawe F angahe?

Imyitozo

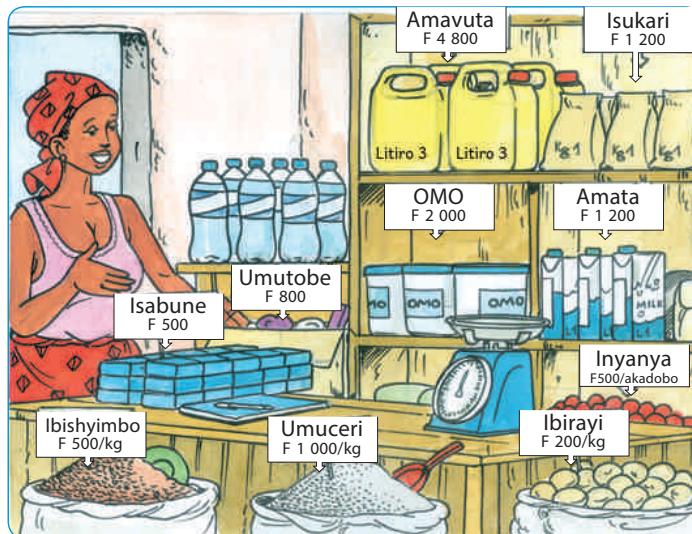


- 1) Umuganwa yaguze amacupa 9 y'umutobe w'ibitoki ku F 4 500. Buri cupa ry'umutobe w'ibitoki yariguze ku F angahe?
- 2) Karangwa yacuruje kg 7 z'umuceri ku F 4 900. Ubwo kg 1 y'umuceri yayigurishaga ku F angahe?
- 3) Niba ₦ 5 z'amata zigura F 2 250 ubwo ₦ 1 igura F angahe?
- 4) Amacupa 9 ya fanta agura F 2 250. Ubwo icupa rimwe rigura F angahe?

8.10 Kugura no kugurisha

Igikorwa

Mwitegerez ibicuruzwa biri muri iri duka maze mukore imyitoto.



- 1) Shaka igiciro cy'amacupa 5 y'umutobe.
- 2) Bagutumye ℓ 3 z'amavuta na ℓ 1 y'amata wakwishiura F angahe?
- 3) Shaka F Mahame yishyuye niba yaraguze kg 2 z'isukari n'imiti 4 y'isabune.
- 4) Nagiye kugura akadobo 1 ka omo n'ibiro 4 by'ibisyimbo bangarurira F 1 000. Ubwo nari nishyuye F angahe?
- 5) Twagiye gusura umuvandimwe tumushyira amacupa 3 y'umutobe, agakarito 1 k'amata na kg 1 y'isukari. Ubwo twishyuye F angahe?

8.11 Akamaro ko kuzigama

Igikorwa cya 1

Musome inkuru ikurikira nimurangiza musubize ibibazo.

Ababyeyi ba Hirwa bamuhaye ibibazo by'imibare, maze bamusezeranya ko nabikora byose atibeshye bamuhemba

F 2 000. Arabikora, bamukosoye basanga yabikoze byose kandi neza. Birabashimisha bamuha igihembo ke. Nyirarume na nyirasenge bari aho na bo birabashimisha buri wese amuhemba F 1 000. Ayabika mu gasanduku kari gafatanye n'igitanda ke. Hashize iminsi abwira ababyeyi be ko ashaka kugura inkoko 2 akazorora. Baramwemerera bamufasha kuzihitamo arazigura arazorora. Hashize umwaka amaze kugira inkokokazi 12 n'amasake 8. Ababyeyi be baje kurwara amafaranga yose bari bafite bayivuzamo. Igihe cy'amashuri kigeze Hirwa abura ibikoresho by'ishuri. Asaba nyirarume ko yajyana amasake 6 ku isoko akayagurisha akamugurira ibikoresho by'ishuri maze amafaranga asigara akayaguramo ibyo kondora ababyeyi be bari barazahajwe n'indwara.

Ibibazo ku nkuru

- 1) Kugira ngo Hirwa agire inkokokazi 12 n'amasake 8 yahereye ku nkoko zingahe?
- 2) Amafaranga yatangije yayakuye he? Ni angahe?
- 3) Kugira ngo Hirwa agire inkokokazi 12 n'amasake 8 byamufashe igihe kingana iki?
- 4) Hirwa abuze ibikoresho by'ishuri yabigenje ate?
- 5) Ni iki Hirwa yafashije ababyeyi be mu gihe bari barwaye?
- 6) Ni irihe somo uvanye muri iyi nkuru?
- 7) Hari inkuru isa n'iyi waba warumvise? Yibwire bagenzi bawe.
- 8) Nyuma yo gusoma iyi nkuru ufashe uwuhe mugambi?

Igikorwa cya 2

Buri wese asobanurire abandi uko umuryango we wizigamira.

Nsobanukiwe ko:

Kuzigama ari umuco mwiza kuko ibyo uzigamye bikugoboka.
Kuzigama bituma umuntu agira ikerekezo gifite intego.
Uzigama uteganyiriza igihe kizaza ugamije kuziteza imbere.

Igikorwa cya 3

Garagaza ibyo wakora baguhaye amafaranga 5 000 kugira ngo uzigamire igihe kizaza.

8.12 Udushinga duciriritse twunguka

Igikorwa cya 1

Musome urutonde rw'udushinga duciriritse twunguka dukurikira maze muhitemo utwunguka kurusha utundi mubisobanure.

- 1) Guhumba ibishyimbo mu mirima iwacu bamaze gusaruramo ibyo mvanyemo nkabigurisha F 3 000 nkaguramo inkoko nkayorora.
- 2) Kubika amafaranga 2 000 bampaye nk'impano nkazayaguramo agakwavu nkakorora.
- 3) Kwiherika akarima k'imboga nka karoti n'amashu umusaruro mvanyemo nkawugurisha F 4 000.
- 4) Gukora ibikinisho nkajya mbigurisha n'abana babisshaka. Igikinisho kimwe nkakigurisha F 100.
- 5) Gutera igiti k'imbuto cy'avoka cyazera nkazajya nsoroma avoka nkazigurisha. Amafaranga nkuyemo nkayagura ibikoresho by'ishuri.

Igikorwa cya 2

Mufatanye gushaka utundi dushinga duciriritse twunguka mwakora ku rwego rwanyu tutabonetse mu rutonde rwo mu gikorwa cya 1.

Nsobanukiwe ko:

Buri wese afite ubushobozi bwo gukora agashinga gaciriritse kunguka kamufasha kubona ibyo akeneye byose no kwiteza imbere.



Nsuzuma ngusuzume

Tegura agashinga gaciriritse kunguka ugiye gukora.
Gararagaza uko uzagakora n'ibyo uteganya kunguka muri
ako gashinga.

8.13 Isuzuma risoza umutwe wa 8

- 1) Uzuza n'amafaranga abura
 - a) $F\ 5\ 000 = F\ 2\ 000 + F\ \underline{\quad} + \text{Inoti}\ 2 \text{ za } F\ 500$
 - b) $F\ 2\ 000 = \text{Ibiceri}\ 10 \text{ bya } F\ 100 + F\ \underline{\quad}$
- 2) Itegereze indangabiciro yo mu iduka rya Butera usubize.

Igicuruzwa	Igiciro
Umugati	F 1000
Umuceri	kg 1 ni F 1100
Isukari	kg 1 ni F 1200
Ibishyimbo	kg 1 ni F 500

Igicuruzwa	Igiciro
Amata	$\ell\ 1 = F\ 500$
Ubunyobwa	kg 1 = 1300
Ubuto	$\ell\ 1 = 2000$
Isababune	F 500

- a) Uguze umugati, $\ell\ 1$ y'amata, na $\ell\ 1$ y'ubuto wakwisyura F angahe?
- b) Munezero afite F 5 000 kandi arashaka guhaha kg 6 z'ibishyimbo, $\ell\ 1$ y'ubuto na kg 2 z'isukari. Ubwo arabura F angahe?
- c) Ireme yaguze kg 1 y'umuceri, kg 1 y'isukari na kg 2 z'ubunyobwa bamugarurira F 100. Ubwo yari yagiye guhaha afite F angahe?
- d) Uguze igicuruzwa kimwekimwe kuri buri bicuruzwa by'ibitembabuzi kuri iyi ndangabiciro wakwisyura F angahe?
- 3) Gabanya ku buryo bungana F 4 800 abakozi 4. Buri wese uzamuha F angahe?
- 4) Muhoza bamuhaye F 3 500 ngo age kugura ikanzu agezeyo asanga igura F 5 000. Ubwo yaburaga F angahe ngo ayigure?



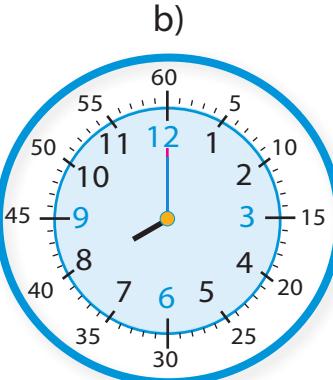
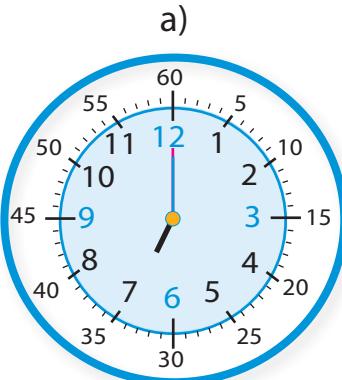
Gapasi iteka ategura amafunguro mbere cyane y'uko abakoresha be bajya mu kiruhuko cya saa sita. Kandi ntajya amenya itariki ukwezi kwe kurangirira. Ahembesha igihe kitaragera cyangwa cyararenze. Ubwo Gapasi akeneye gusobanukirwa iki mu mibare?

9.1 Gusoma ukavuga igihe kerekana n'isaha

A. Isaha yuzuye

Igikorwa cya 1

Mwitegerezze amasaha, muvuge igihe yerekana:



c)
7:00

d)
8:00

Nsobanukiwe ko:

1. Isaha y'inshinge

Isaha iba yuzuye iyo urushinge rugufi rubara amasaha ruri ku mubare uwo ari wo wose uri mu isaha naho urushinge rurerure rubara iminota n'agashinge karekare cyane kabara amasegonda bihuriye ku mubare 12.

2. Isaha y'imibare

Umubare uhagarariye amasaha ukurikirwa n'utudomo tubiri hanyuma hakaza amazeru abiri.



Nsuzuma ngusuzume

Shushanya isaha y'inshinge n'i y'imibare ibara:

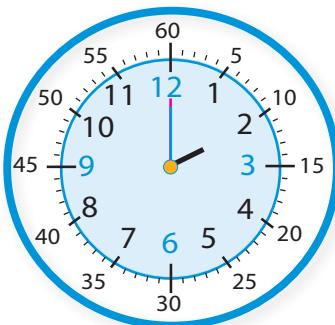
- a) Saa saba b) Saa tanu

Imyitozo

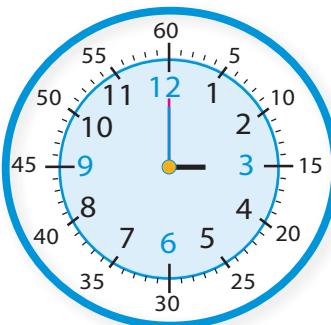


Itegereze amasaha uvuge igihe

a)



b)



c)

2:00

d)

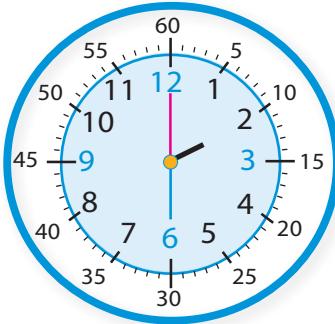
3:00

B. Isaha irengaho iminota 30

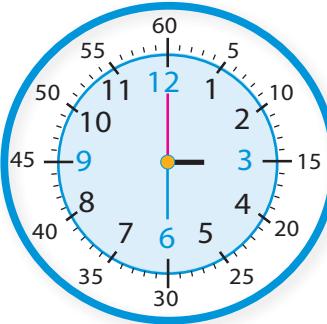
Igikorwa

Mwitegerezze amasaha muvuge igihe yerekana:

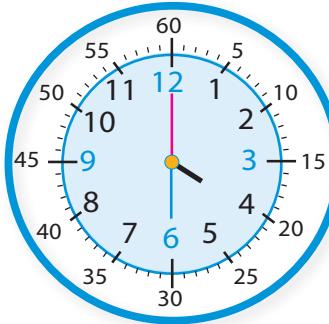
a)



b)



c)



d)

7:30

e)

8:30

f)

9:30

Nsobanukiwe ko:

1. Isaha y'inshinge

Isaha iba irengaho iminota mirongo itatu iyo urushinge rubara amasaha ruri hagati y'imibare 2 iri mu isaha naho urushinge rurerure rubara iminota ruri ku mubare 6.

Usoma umubare ubanziriza urushinge rubara amasaha ukongeraho iminota 30.

2. Isaha y'imibare

Umubare uhagarariye amasaha ukurikirwa n'utudomo tubiri natwo tugakurikirwa n'umubare 30.



Reka nisuzume



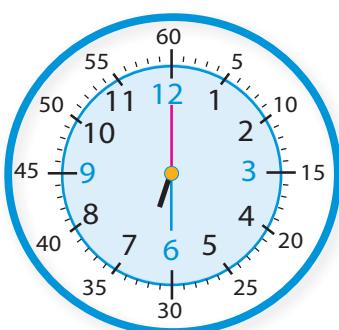
- 1) Shushanya isaha y'inshinge yerekana:
a) Saa sita n'igice b) Saa tatu n'igice
- 2) Shushanya isaha y'imibare ibara
a) Saa kumi n'imwe n'igice b) Saa saba n'igice

C. Isaha iburaho iminota 30

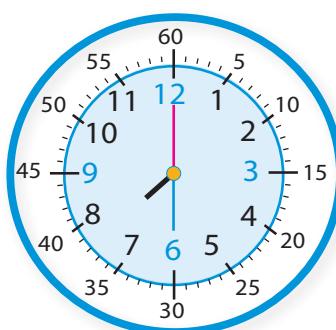
Igikorwa

Mwitegerezze amasaha muvuge igihe yerekana:

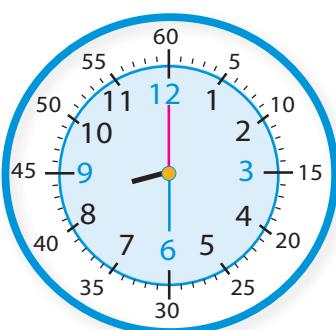
a)



b)



c)



d.

6:30

e.

7:30

f.

8:30

Nsobanukiwe ko:

1. Isaha y'inshinge

Bavuga ko isaha iburaho iminota mirongo itatu (30) iyo urushinge rugufi rubara amasaha ruri hagati y'imibare 2 iri mu isaha naho urushinge rurerure rubara iminota ruri ku mubare 6. Usoma umubare ukurikira urushinge rubara amasaha ukongeraho ko ibura iminota mirongo itatu (30).

2. Isaha y'imibare

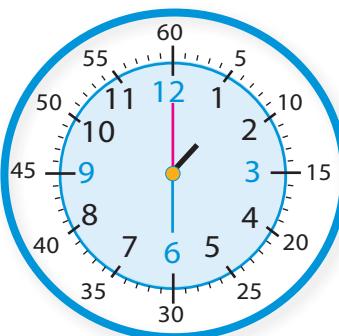
Umubare uhagarariye amasaha ni umubare ukurikira uri mu isaha ukurikirwa n'utudomo tubiri natwo tugakurikirwa n'umubare 30.



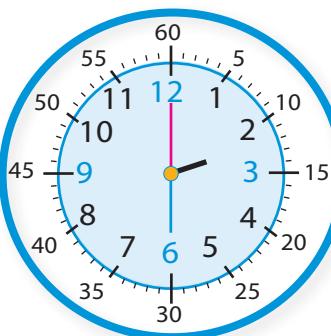
Nsuzuma ngusuzume

Mwitegerezze amasaha, muvuge igihe yerekana.

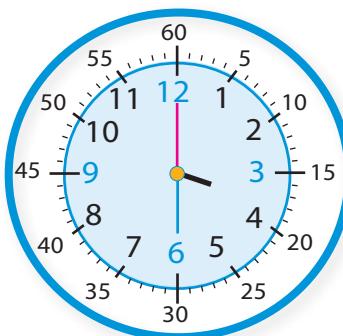
a)



b)



c)



d)

1:30

e)

2:30

f)

3:30

Imyitozo



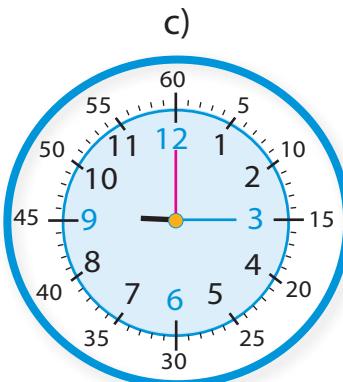
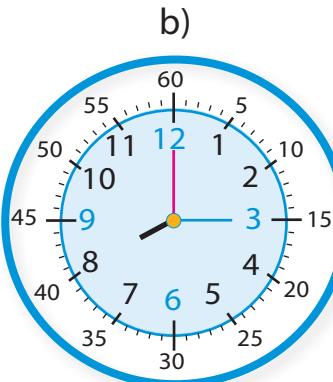
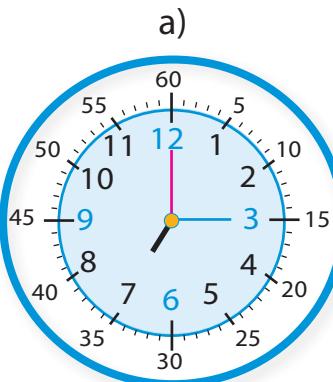
Shushanya isaha y'inshinge n'iy'imibare werekana:

- a) Saa munani zibura iminota 30
- b) Saa kumi n'ebiyiri zibura iminota 30

D. Isaha irengaho iminota 15

Igikorwa

Mwitegerezze amasaha, muvuge igihe yerekana.



d) **7:15**

e) **8:15**

f) **9:15**

Nsobanukiwe ko:

1. Isaha y'inshinge

Isaha iba irengaho iminota cumi n'itanu iyo urushinge rugufi rubara amasaha rurenze gatoya ku mubare uwo ari wo wose uri mu isaha naho urushinge rurerure rubara iminota ruri ku mubare 3.

2. Isaha y'imibare

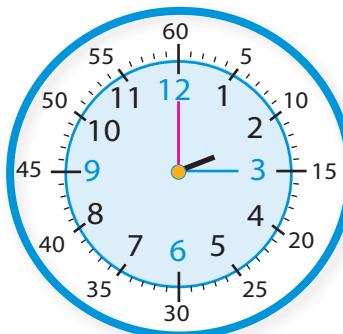
Umubare uhagarariye amasaha uba ukurikiwe n'utudomo tubiri natwo tugakurikirwa n'umubare 15.



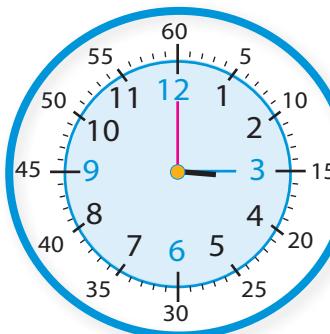
Nsuzuma ngusuzume

Mwitegerezze amasaha muvuge igihe yerekana:

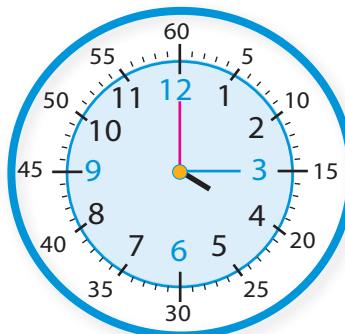
a)



b)



c)



d)

2:15

e)

3:15

f)

4:15



Reka nisuzume



- 1) Shushanya isaha y'inshinge yerekana:
 - a) Saa saba na cumi n'itanu
 - b) Saa yine n'igice
- 2) Shushanya isaha y'imibare ibara
 - a) Saa kumi n'imwe na cumi n'itanu
 - b) Saa saba na cumi n'itanu

Umwitoto



Shushanya isaha y'inshinge n'i'y'imibare yerekana:

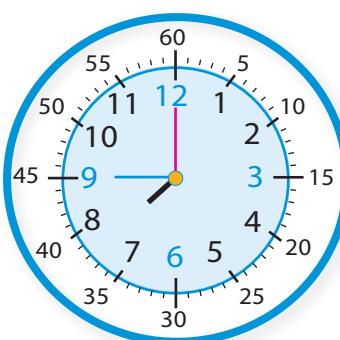
- a) 8:00
- b) 10:30
- c) 11:15
- d) 6:30

E Isaha iburaho iminota 15

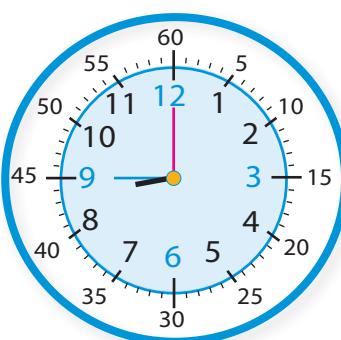
Igikorwa

Mwitegerezze amasaha muvuge igihe yerekana:

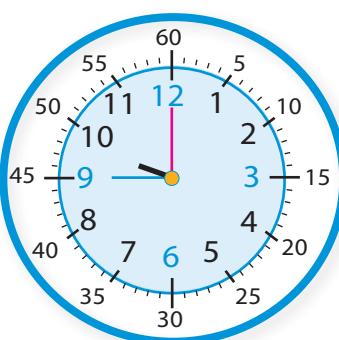
a)



b)



c)



d)

7:45

e)

8:45

f)

9:45

Nsobanukiwe ko:

1. Isaha y'inshinge

Bavuga ko isaha iburaho iminota cumi n'itanu (15) iyo urushinge rugufi rubara amasaha rurenze gatoya ku mubare uwo ari wo wose uri mu isaha naho urushinge rurerure rubara iminota ruri ku mubare 9. Icyo gihe usoma umubare ukurikira uriho urushinge rubara amasaha ukongeraho ko ibura iminota cumi n'itanu (15).

2. Isaha y'imibare

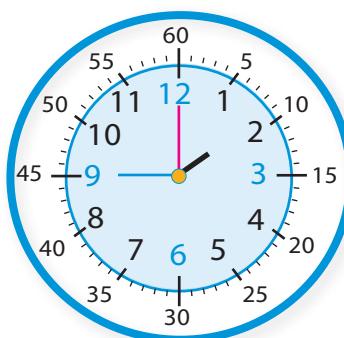
Umubare uhagarariye amasaha uba ukurikiwe n'utudomo tubiri natwo tugakurikirwa n'umubare 45.



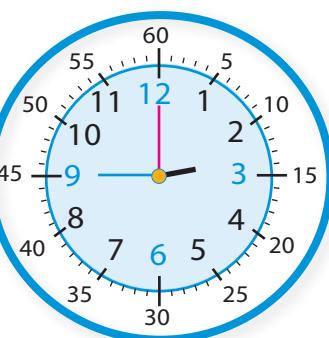
Nsuzuma ngusuzume

Mwitegerezze amasaha muvuge igihe yerekana:

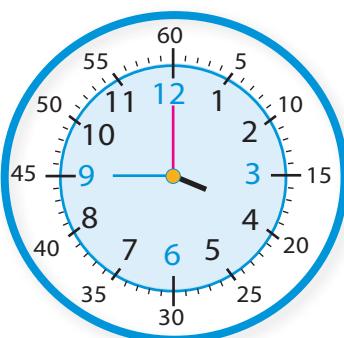
a)



b)



c)



d)

2:45

e)

2:45

f)

3:45

Imyitozo



- 1) Shushanya isaha y'inshinge yerekana:
 - a) Saa mbiri zibura iminota 15
 - b) Saa kumi n'imwe zibura iminota 15
- 2) Ni gihe ki?
 - a) 12:15
 - b) 7:15

9.2 Gusoma ukandika igihe kerekawwe ku isaha

Igikorwa cya 1

Musome, mwandike igihe kerekawwe n'aya masaha y'imibare.

12:00

8:30

10:45

Nsobanukiwe ko:

Iyo bandika isaha bandika umubare w'isaha ugakurikirwa n'utudomo tubiri hagakurikiraho umubare w'iminota.

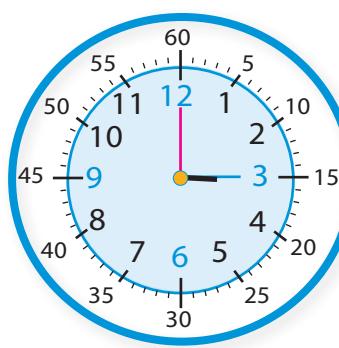
Imibare	Isaha werekana	Isaha
1	Saa saba z'amanywa cyangwa z'ijoro	1:00
2	Saa munani z'amanywa cyangwa z'ijoro	2:00
3	Saa kenda z'amanywa cyangwa z'ijoro	3:00
4	Saa kumi z'amanywa cyangwa z'ijoro	4:00
5	Saa kumi n'imwe z'amanywa cyangwa z'ijoro	5:00
6	Saa kumi n'ebyiri z'amanywa cyangwa z'ijoro	6:00
7	Saa moya z'amanywa cyangwa z'ijoro	7:00
8	Saa mbiri z'amanywa cyangwa z'ijoro	8:00
9	Saa tatu z'amanywa cyangwa z'ijoro	9:00
10	Saa yine z'amanywa cyangwa z'ijoro	10:00
11	Saa tanu z'amanywa cyangwa z'ijoro	11:00
12	Saa sita z'amanywa cyangwa z'ijoro	12:00



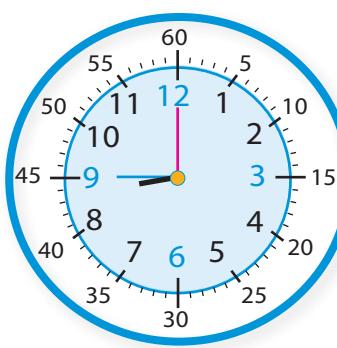
Nsuzuma ngusuzume

Mwitegerezze, musome hanyuma mwandike amasaha yerekanwe mu mibare no mu magambo.

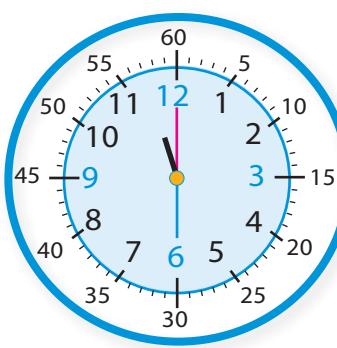
a)



b)



c)



d)

11:00

e)

7:00

f)

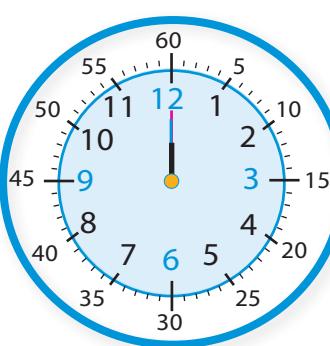
12:15

Imyitozo

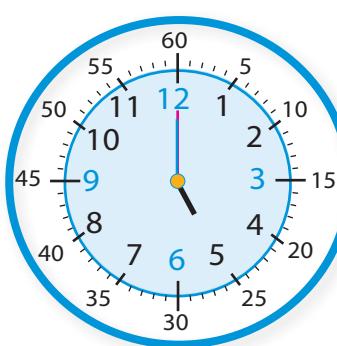


- 1) Andika mu mibare no mu magambo igihe kerekana we n'amasaha akurikira:

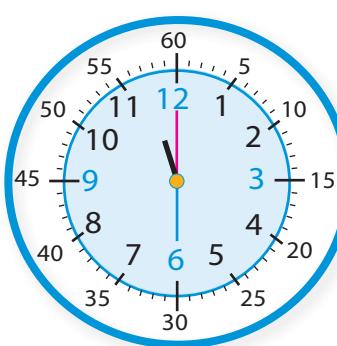
a)



b)



c)



- 2) Shushanya amasaha y'inshinge yerekana:

a) 10:45

c) Saa saba na 15

b) Saa munani na 30

d) 6:00

9.3 Indangaminsi

Igikorwa cya 1

Mwitegerezé indangaminsi y'umwaka wa 2018, musubize ibibazo.

Mutarama 2018						
Ku wa Mbere	Ku wa Kabiri	Ku wa Gatatu	Ku wa Kane	Ku wa Gatanu	Ku wa Gatandatu	Ku Cyumweru
	1	2	3	4	5	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				

- 1) Iyo ndangaminsi iriho amezi angahe? Yavuge
- 2) Ukwezi kwa mbere k'umwaka wa 2018:
 - a) Gutangira ku wa kangahe?
 - b) Kurangira ku wa kangahe?
 - c) Gufite iminsi ingahe?
- 3) Umwaka wa 2018 ufile ibyumweru bingahe?
- 4) Umwaka wa 2018 ufile iminsi ingahe?
- 5) Mwandike amatariki akurikira:
 - a) Amatariki y'amavuko yanyu
 - b) Amatariki mwafungiyeho igihembwe cya mbere
 - c) Amatariki mwafunguriyeho igihembwe cya 2

Nsobanukiwe ko:

Umwaka ugira amezi 12.

Amezi	Iminsi
Mutarama	31
Gashyantare	28/29
Werurwe	31
Mata	30
Gicurasi	31
Kamena	30

Amezi	Iminsi
Nyakanga	31
Kanama	31
Nzeri	30
Ukwakira	31
Ugushyingo	30
Ukuboza	31

Umwaka ugira ibyumweru 52. Iminsi 365 cyangwa 366. Icyumweru kigira iminsi 7, umunsi ukagira amasaha 24.

Igikorwa cya 2

Mwigane indangaminsi ya 2018 muyishushanye mugarukire ku mezi 4 abanza.

9.4 Umwaka usanzwe n'umwaka udasanzwe

Igikorwa cya 1

Mwifashishe indangaminsi, muganire ku myaka ikurikira maze muvuge iminsi igize ukwezi kwa Gashyantare.

- a) Umwaka wa 2018
- b) Umwaka wa 2017
- c) Umwaka wa 2016
- d) Umwaka wa 2015

Ese muri iyi myaka ni uwuhe ugabanyika na 4?

Nsobanukiwe ko:

- Imyaka ya 2015, 2017, na 2018 ari imyaka isanzwe
- Umwaka usanzwe uba ufite ukwezi kwa Gashyantare gufite iminsi 28.
- Umwaka usanzwe ugira iminsi 365.
- Umwaka usanzwe ntabwo ugabanyika na 4
- Umwaka wa 2016 ni umwaka udasanzwe
- Umwaka udasanzwe uba ufite ukwezi kwa Gashyantare gufite iminsi 29.
- Umwaka udasanzwe ugira iminsi 366.
- Umwaka udasanzwe ugabanyika na 4.

Igikorwa cya 2

Itegereze urugero, uvuge imyaka isanzwe iri mbere ya 2018.

Urugero:

Umwaka wa 2018 ni umwaka usanzwe, ufite iminsi 365
Umwaka wa 2016 wari umwaka udasanzwe ufite iminsi 366.

$$2018 : 4 = 504 \text{ Hasigaye 2}$$

$$\begin{array}{r}
 2018 \quad | \quad 4 \\
 - 20 \quad | \quad \boxed{504} \\
 \hline
 001 \\
 - 0 \quad | \quad \boxed{18} \\
 \hline
 18 \\
 - 16 \quad | \quad \boxed{02} \\
 \hline
 \end{array} \text{ Hasigaye 2}$$

$$2016 : 4 = 504$$

$$\begin{array}{r}
 2016 \quad | \quad 4 \\
 - 20 \quad | \quad \boxed{504} \\
 \hline
 001 \\
 - 0 \quad | \quad \boxed{16} \\
 \hline
 16 \\
 - 16 \quad | \quad \boxed{00} \\
 \hline
 \end{array}$$

Imyitozo



- 1) Hitamo imyaka isanzwe muri iyi ikurikira:
 - a) 1990
 - c) 1994
 - e) 1993
 - b) 1992
 - d) 1995
 - f) 1991
- 2) Vuga imyaka idasanzwe iri muri iyi ikurikira:
 - a) 1990
 - c) 1998
 - e) 1994
 - b) 1996
 - d) 1992
 - f) 1999
- 3) Shaka imyaka idasanzwe iri hagati ya 1998 na 2021

9.5 Guhindura imyaka mu mezi

Igikorwa

Mwitegerezze ibyakozwe ku rugero maze musobanure.

Urugero: Imyaka 6 ingana n'amezi angahe?

Umwaka 1 ungana n'amezi 12

Imyaka 6 ingana n'amezi $12 \times 6 = \text{Amezi } 72$

Nsobanukiwe ko:

Iyo uhindura imyaka mu mezi ufata amezi 12 agize umwaka ukayakuba n'umubare w'imyaka baguhaye.



Nsuzuma ngusuzume

- a) Imyaka 9 = Amezi ____
- b) Imyaka 10 = Amezi ____
- c) Imyaka 15 = Amezi ____
- d) Imyaka 8 = Amezi ____
- e) Imyaka 7 = Amezi ____
- f) Imyaka 13 = Amezi ____



Reka nisuzume

- a) Imyaka 2 = Amezi ____
- b) Imyaka 3 = Amezi ____
- c) Imyaka 4 = Amezi ____
- d) Imyaka 11 = Amezi ____
- e) Imyaka 12 = Amezi ____
- f) Imyaka 14 = Amezi ____

9.6 Guhindura ibyumweru mu minsi

Igikorwa

Mwitegerezze ibyakozwe ku rugero maze musobanure.

Urugero: Ibyumweru 3 = Iminsi ingahe?

Icyumweru 1 kingana n'iminsi 7

Ibyumweru 3 bingana n'iminsi 7×3 ni iminsi 21

Nsobanukiwe ko:

Iyo uhindura ibyumweru mu minsi, ufata iminsi 7 igize icyumweru ukayikuba n'umubare w'ibyumweru baguhaye.



Nsuzuma ngusuzume

- a) Ibyumweru 9 = Iminsi ____
- b) Ibyumweru 11 = Iminsi ____
- c) Ibyumweru 15 = Iminsi ____
- d) Ibyumweru 20 = Iminsi ____
- e) Ibyumweru 8 = Iminsi ____
- f) Ibyumweru 5 = Iminsi ____



Reka nisuzume

- a) Ibyumweru 19 = Iminsi ____
- b) Ibyumweru 31 = Iminsi ____
- c) Ibyumweru 45 = Iminsi ____
- d) Ibyumweru 80 = Iminsi ____
- e) Ibyumweru 38 = Iminsi ____
- f) Ibyumweru 45 = Iminsi ____

Imyitoto



- a) Ibyumweru 24 = Iminsi ____
- b) Ibyumweru 19 = Iminsi ____
- c) Ibyumweru 55 = Iminsi ____
- d) Ibyumweru 40 = Iminsi ____
- e) Ibyumweru 82 = Iminsi ____
- f) Ibyumweru 56 = Iminsi ____

9.7 Guhindura iminsi mu masaha

Igikorwa

Mwitegerezze ibyakozwe ku rugero maze musobanure.

Urugero: Iminsi 2 ingana n'amasaha angahe?

Umunsi 1 ungana n'amasaha 24

Iminsi 2 ingana n'amasaha 24×2 ni amasaha 48

Nsobanukiwe ko:

Iyo uhindura iminsi mu masaha ufata amasaha agize umunsi ari yo 24 ukayakuba n'umubare w'iminsi baguhaye.



Nsuzuma ngusuzume

- a) Iminsi 15 = Amasaha ____
- b) Iminsi 7 = Amasaha ____
- c) Iminsi 10 = Amasaha ____
- d) Iminsi 8 = Amasaha ____
- e) Iminsi 18 = Amasaha ____
- f) Iminsi 35 = Amasaha ____



Reka nisuzume



- a) Iminsi 13 = Amasaha ____
- b) Iminsi 6 = Amasaha ____
- c) Iminsi 9 = Amasaha ____
- d) Iminsi 17 = Amasaha ____
- e) Iminsi 35 = Amasaha ____
- f) Iminsi 4 = Amasaha ____

Imyitoto



- a) Iminsi 3 = Amasaha ____
- b) Iminsi 4 = Amasaha ____
- c) Iminsi 5 = Amasaha ____
- d) Iminsi 14 = Amasaha ____
- e) Iminsi 16 = Amasaha ____
- f) Iminsi 19 = Amasaha ____

9.8 Gahunda z'ibikorwa

A. Gahunda y'ibikorwa bya buri munsi

Igikorwa cya 1

Mwitegerezé gahunda y'ibikorwa bya buri munsi bya Muhoza muyigereranye n'ibyo musanzwe mukora.

Igihe	Ibikorwa
Saa 6:00 za mu gitondo	Kubyuka
Saa 6:00 – 6:30 za mu gitondo	Kwitunganya
Saa 7:00 za mu gitondo	Kujya ku ishuri
Saa 7:30 – 12:30 z'amanywa	Amasomo
Saa 12:30 – 1:30 z'amanywa	Gufata ifunguro ryo ku manywa
Saa 2.00 – 4:30 z'umugoroba	Amasomo
Saa 4-30 – 4:50 z'umugoroza	Kwandika umukoro wo mu rugo
Saa 4:50 – 5:00 z'umugoroba	Gutunganya ibitabo n'ibikoresho
Saa 5:00 z'umugoroba	Gutaha
Saa 6:00 z'umugoroba	Gukaraba
Saa 7:00 z'ijoro	Gusubira mu masomo no gukora umukoro
Saa 8:00 z'ijoro	Gufata ifunguro rya njoro
Saa 9:00 z'ijoro	Kuryama

Igikorwa cya 2

Ukurikije gahunda y'ibikorwa bya Muhoza umaze kubona, kora gahunda y'ibikorwa byawe by'ejo.

B. Gahunda y'ibikorwa bya buri cyumweru

Igikorwa cya 1

Mwitegerezé gahunda y'ibikorwa bya buri cyumweru bya Mugisha muyigereranye n'ibyo musanzwe mukora.

Igihe	Ibikorwa
Ku wa Mbere	<ul style="list-style-type: none">- Kujya ku ishuri- Gukora umukoro
Ku wa Kabiri	<ul style="list-style-type: none">- Kujya ku ishuri- Kuhira indabo- Gukora umukoro
Ku wa Gatatu	<ul style="list-style-type: none">- Kujya ku ishuri- Kugaburira inkoko- Gukora umukoro
Ku wa Kane	<ul style="list-style-type: none">- Kujya ku ishuri- Gufasha ababyeyi isuku- Gukora umukoro
Ku wa Gatanu	<ul style="list-style-type: none">- Kujya ku ishuri- Gusoma ibitabo by'udukuru- Gukora umukoro
Ku wa Gatandatu	<ul style="list-style-type: none">- Gufasha kumesa no gusukura- Gukora umukoro
Ku Cyumweru	<ul style="list-style-type: none">- Gusenga

Igikorwa cya 2

Ukurikije gahunda y'ibikorwa bya Mugisha umaze kubona, kora gahunda y'ibikorwa byawe by'icyumweru gitaha.

C. Gahunda y'ibikorwa by'ukwezi

Igikorwa cya 1

Mwitegerezé gahunda y'ibikorwa bya buri kwezi bya Kamariza muyigereranye n'ibyo musanzwe mukora.

Igihe	Ibikorwa
Icyumweru cya 1	<ul style="list-style-type: none"> - Kwiga - Uturimo two mu rugo - Gusenga
Icyumweru cya 2	<ul style="list-style-type: none"> - Kwiga - Uturimo two mu rugo - Gusenga - Gusura inshuti
Icyumweru cya 3	<ul style="list-style-type: none"> - Kwiga - Uturimo two mu rugo - Gusenga - Amarushanwa y'umupira
Icyumweru cya 4	<ul style="list-style-type: none"> - Kwiga - Uturimo two mu rugo - Gusenga - Kujya gusura abarwayi

Igikorwa cya 2

Ukurikije gahunda y'ibikorwa bya Kamariza umaze kubona, kora gahunda y'ibikorwa byawe by'ukwezi gutaha.

Nsobanukiwe ko:

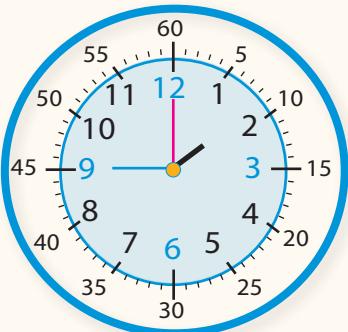
Gukora gahunda y'ibyo ukora mbere yo kubikora bigufasha kubahiriza igihe neza. Gukoresha igihe neza bituma udatakaza umwanya.

Gukora gahunda y'ibikorwa bigufasha gukora neza ufite intego.

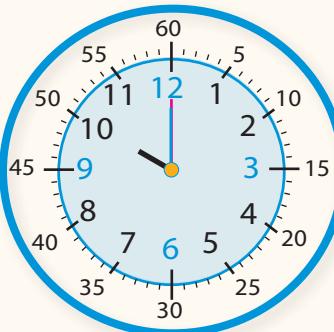
9.9 Isuzuma risoza umutwe wa 9

1) Soma wandike igihe kerekane we kuri aya masaha

a)



b)



c)

7:30

d)

10:00

2) Hindura mu gihe wabajijwe

- a) Imyaka 40 = Amezi ____
- b) Ibyumweru 50 = Iminsi ____
- c) Iminsi 33 = Amasaha ____
- d) Imyaka 19 = Amezi ____
- e) Iminsi 29 = Amasaha ____

3) Uzuza izi nteruro

- a) Umwaka usanzwe ugira iminsi ____ naho
udasanzwe ukagira iminsi ____
- b) Ukwezi kugira ibyumweru ____ naho umwaka
ukagira amezi ____
- c) Icyumweru kigira iminsi ____ naho umunsi ukagira
amasaha ____
- d) Ukwezi kugira iminsi mike mu mezi y'umwaka ni ____

4) Hitamo imyaka isanzwe muri iyi ikurikira

- a) 2000
- b) 2004
- c) 2002
- d) 2007
- e) 2005
- f) 2008

5) Vuga imyaka idasanzwe iri muri iyi ikurikira

- a) 2000
- b) 2016
- c) 2010
- d) 2019
- e) 2012
- f) 2008

6) Shaka imyaka idasanzwe iri hagati ya 2010 na 2030

Amoko y'imirongo n'имвuruka



Sebisusa yahuguriwe guhinga kijyambere. Abajyanama b'ubuhinzi bamusuye basanga yarateye imyaka ye mu murima udatunganyije neza, yarayiteye ku mirongo itagororotse. Ese akeneye kumenya iki mu mibare?



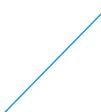
10.1 Amoko y'imirongo

A. Imirongo igororotse

Igikorwa cya 1

Mwitegerezze imirongo ikurikira, muvuge ibiyiranga.

- a) _____ b) _____ c) _____



Igikorwa cya 2

- a) Mwifashishije uducamurongo mucce imirongo iteye nk'iyo mumaze kwitegerezza mu gikorwa cya 1;
- b) Muyice nta kintu mwifashishije kindi uretse ikaramu n'urupapuro;
- c) Mugereranye munaganire kuri iyo mirongo yo muri a n'iyo muri b).

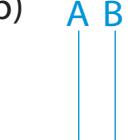
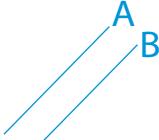
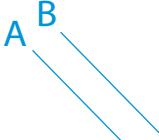
Nsobanukiwe ko:

Imirongo igiye umujyo umwe ari imirongo igororotse.

B. Imirongo iteganye

Igikorwa cya 1

Mwitegereze imirongo ikurikira, muvuge ibiyiranga.

- a)  b)  c)  d) 



Reka nisuzume



Ifashishe agacamurongo uce imirongo ibiri igororotse uheze urupapuro urebe niba ihura.

Nsobanukiwe ko:

Imirongo igororotse iteganye idashobora guhura. Imirongo igororotse iteganye iba ifite intera ingana hagati yayo.



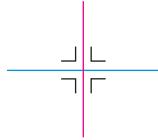
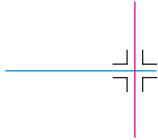
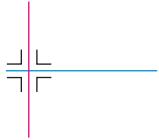
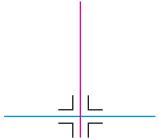
Nsuzuma ngusuzume

1. Mwifashishije agacamurongo muce imirongo itatu itatu iteganye.
2. Mwitegereze mu ishuri mwerekane ibintu biriho imirongo iteganye muvuge ibindi musanzwe muzi biriho iyo mirongo.

C. Imirongo inyuranamo igakora imfuruka zigororotse

Igikorwa cya 1

Mwitegereze imirongo ikurikira muvuge ibiyiranga

- a)  b)  c)  d) 



Reka nisuzume



Mwifashishije agacamurongo muce imirongo ibiri igororotse uhagaze n'utambitse, ihura igakora imfuruka igororotse.

Nsobanukiwe ko:

Imirongo inyuranamo iba igiye mu byerekezo bitandukanye. Umurongo ugororotse utambitse n'umurongo ugororotse uhagaze iyo inyuranamo bikora imfuruka 4 zigororotse.



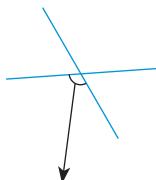
Nsuzuma ngusuzume

- a) Mushushanye imirongo inyuranamo igakora imfuruka zigororotse.
- b) Mukoreshe amarati, uduti, utubuye n'amakaramu mukore imirongo ibiri igororotse ihura igakora imfuruka igororotse.
- D. Imirongo inyuranamo igakora imfuruka zagutse n'izifunganye

Igikorwa cya 1

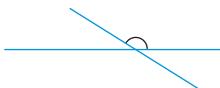
Mwitegerezze imirongo ikurikira muvuge ibiyiranga

a)

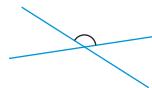


Imfuruka yagutse

b)



c)



d)



Imfuruka ifunganye



Reka nisuzume



Ifashishe agacamurongo uce imirongo ibiri igororotse iberamye, inyuranamo igakora imfuruka zagutse n'izifunganye.

Nsobanukiwe ko:

Imirongo inyuranamo iba igiye mu byerekezo bitandukanye. Umurongo ugororotse uberamiye iburyo n'uberamiye ibumoso iyo bihuye bikora imfuruka 4. Ebyiri zagutse n'ebiiri zifunganye.



Nsuzuma ngusuzume

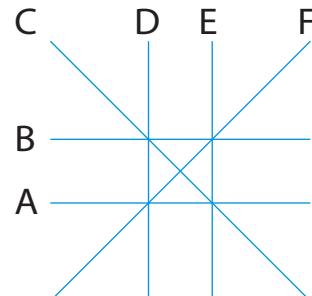
- a) Shushanya imirongo igororotse inyuranamo igakora imfuruka zagutse n'izifunganye.
- b) Koresha amarati, uduti, utubuye amakaramu ukore imirongo 2 igororotse iberamye ihura igakora imfuruka.

Imyitozo



Itegereze uvuge amazina y'imirongo wabajije

- a) A na B ni imirongo _____
- b) A na C ni imirongo _____
- c) A na D ni imirongo _____
- d) A na F ni imirongo _____
- e) A na E ni imirongo _____
- f) B na D ni imirongo _____
- g) B na C ni imirongo _____
- h) B na E ni imirongo _____



10.2 Amoko y'imfuruka

A. Imfuruka igororotse

Igikorwa cya 1

Mwitegereze iyi shusho muvuge ibyo mubonaho.



Reka nisuzume



Ifashishije ingeramfuruka, ushushanye imfuruka igororotse.

Nsobanukiwe ko:

Imfuruka igororotse ikorwa n'imirongo 2 igororotse. Uhagaze n'utambitse. Imfuruka igororotse ipima dogere 90.



Nsuzuma ngusuzume

- a) Shushanya imfuruka 4 zigororotse.
- b) Erekana ibintu biriho imfuruka igororotse biri mu ishuri cyangwa uvuge ibindi usanzwe uzi biriho iyo mfuruka.

B. Imfuruka ifunganye

Igikorwa cya 1

Mwitegerezze iyi shusho, muvuge ibyo mubonaho.



Reka nisuzume



Ifashishe agacamurongo n'ingeramfuruka ushushanye imfuruka ifunganye.

Nsobanukiwe ko:

Imfuruka ifunganye ikozwe n'imirongo igororotse umwe uhagaze cyangwa utambitse n'undi uberamye inyuranamo ku buryo ihura isa n'ifungana. Ibibimo by'imfuruka zifunganye biba munsi ya dogere 90.

Igikorwa cya 3

- a) Mushushanye imfuruka 4 zifunganye.
- b) Mwerekane ibintu biriho imfuruka ifunganye biri mu ishuri cyangwa ibindi bintu muzi.

C. Imfuruka yagutse

Igikorwa cya 1

Mwitegerezze iyi shusho muvuge ibyo mubonaho.



Reka nisuzume



Ifashishe ingeramfuruka ushushanye imfuruka yagutse.

Nsobanukiwe ko:

Imfuruka yagutse ikozwe n'imirongo igororotse umwe uhagaze cyangwa utambitse n'undi uberamye inyuranamo ku buryo ihura ikora inguni yagutse. Ibibimo by'imfuruka zagutse biba biri hagati dogere 90 na dogere 180.

Igikorwa cya 3

- a) Shushanya imfuruka 4 zagutse.
- b) Erekana ibintu biriho imfuruka zagutse biri mu ishuri cyangwa ibindi bintu usanzwe uzi.

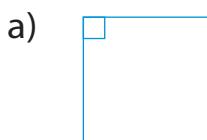
Imyitoto



- 1) Mwitegerezze iyi shusho mwerekane kandi muvuge amazina y'imfuruka ziriho.



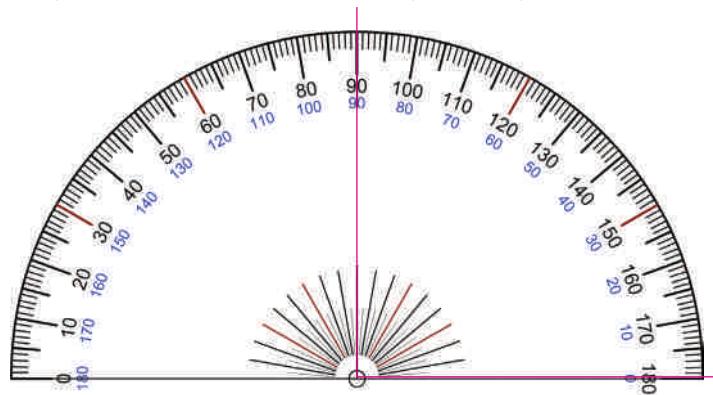
- 2) Vuga amazina y'imfuruka zikurikira



10.3 Uko bakoresha ingeramfuruka bapima imfuruka

Igikorwa cya 1

Mwitegerezze iyi shusho muvuge ibyo muyibonaho.



Nsobanukiwe ko:

- Ushyira ingeramfuruka ku nshonda (aho imirongo ikora imfuruka ihurira) y'imfuruka uteganyije na dogere 90.
- Ureba ko umurongo wa mbere w'imfuruka yawe unyura muri dogere zero na dogere 180.
- Usoma dogere ziringaniye n'umurongo wa kabiri w'imfuruka yawe.

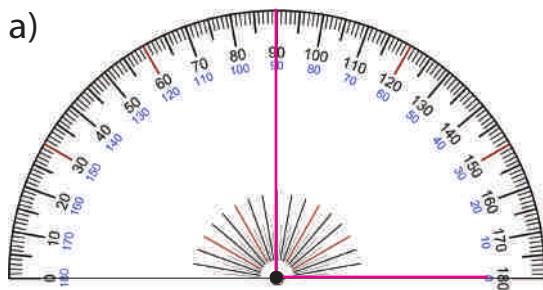


Reka nisuzume

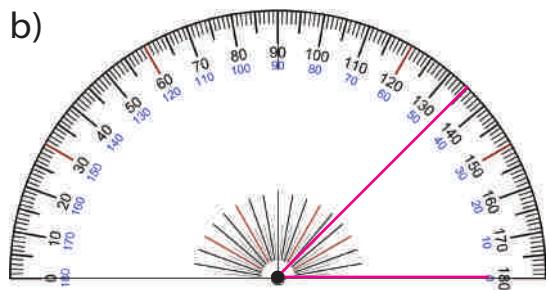


Itegereze uvuge ingano y'imfuruka iri kuri buri ngeramfuruka:

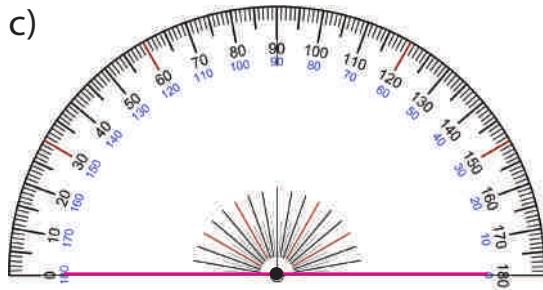
a)



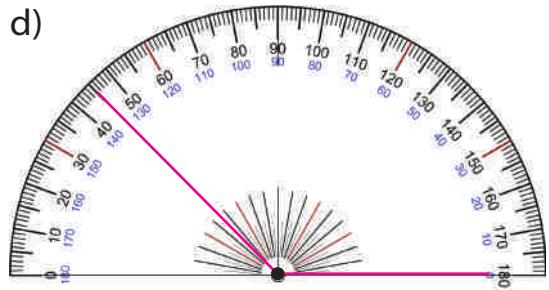
b)



c)



d)



Nsuzuma ngusuzume

Koresha agacamurongo n'ingeramfuruka ushushanye imfuruka zifite dogere:

a) 75

c) 125

e) 76

b) 90

d) 150

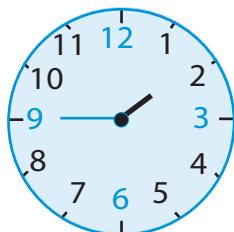
f) 35

Imyitozo

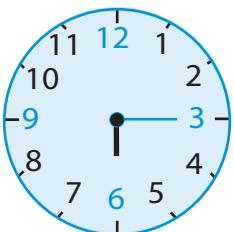


- 1) Koresha ingeramfuruka upime ingano y'imfuruka ikozwe n'inshinge z'isaha (urubara amasaha n'urubara iminota).

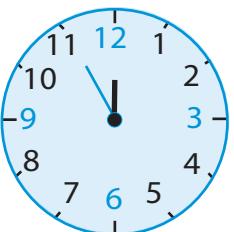
a)



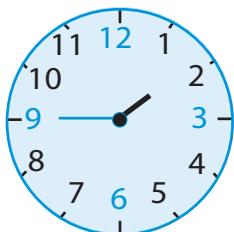
b)

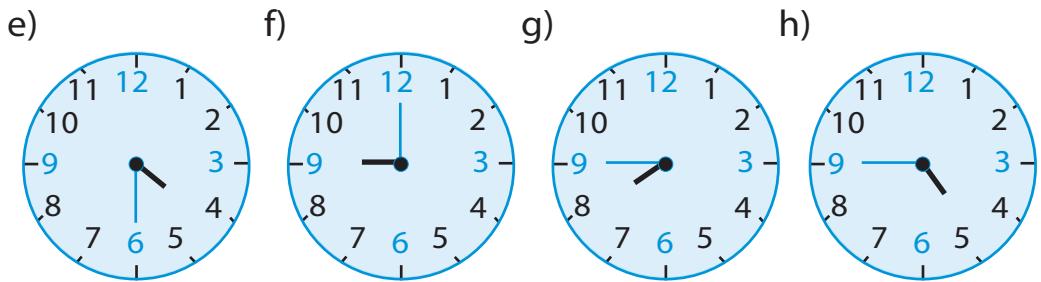


c)



d)





2) Itegereze mbere yo gushushanya imfuruka wabajije hanyuma uvuge amazina yazo unazipime ukoresheje ingeramfuruka

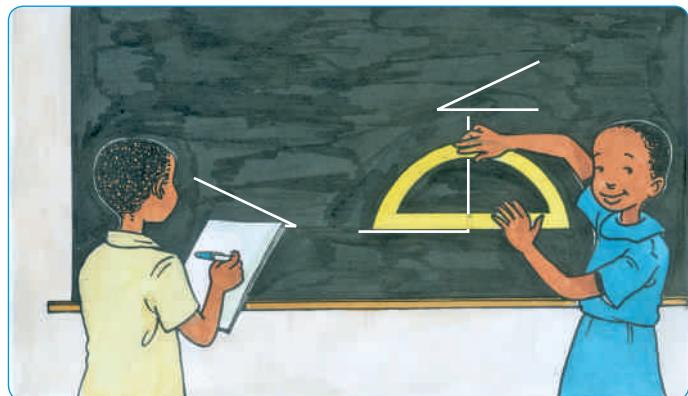
- | | | | |
|----|----|----|----|
| A• | B• | C• | D• |
| E• | F• | G• | H• |
| I• | J• | K• | L• |
- a) Huza B na A hamwe na B na E
 - b) Huza J na K hamwe na J na F
 - c) Huza G na B hamwe na G na H
 - d) Huza I na J hamwe na I na F

10.4 Kugreranya imfuruka bapima

A. Imfuruka igorotse n'ifunganye

Igikorwa

Mwitegereze iyi shusho muvuge ibiri gukorwa





Reka nisuzume



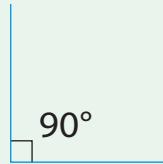
Shushanya imfuruka igororotse n'ifunganye, uzipime hanyuma ugereranye ibipimo byazo.

Nsobanukiwe ko:

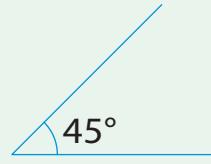
Imfuruka igororotse iruta imfuruka ifunganye.

Urugero: $90^\circ > 45^\circ$

a) Imfuruka igororotse ya 90°



b) Imfuruka ifunganye ya 45°



Nsuzuma ngusuzume

Shushanya imfuruka 2 zigororotse n'izindi 2 zifunganye, koresha ingeramfuruka uzipime hanyuma ugereranye ibipimo byazo.

B. Imfuruka igororotse n'iyagutse

Igikorwa

Mwitegereze iyi shusho muvuge ibiri gukorwa.





Reka nisuzume



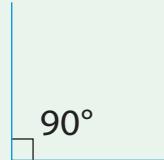
Shushanya imfuruka igororotse n'iyagutse, uzipime hanyuma ugereranye ibipimo byazo.

Nsobanukiwe ko:

Imfuruka igororotse irutwa n'imfuruka yagutse

Urugero: $90^\circ < 150^\circ$

a) Imfuruka igororotse ya 90°



b) Imfuruka yagutse ya 150°



Nsuzuma ngusuzume

Shushanya imfuruka 2 zigororotse n'izindi 2 zagutse, ukoreshe ingeramfuruka uzipime hanyuma ugereranye ibipimo byazo.

C. Imfuruka ifunganye n'iyagutse

Igikorwa cya 1

Mwitegerezze iyi
shusho muvuge ibiri
gukorwa.



Igikorwa cya 2

Shushanya imfuruka igororotse n'iyagutse, uzipime hanyuma ugereranye ibipimo byazo.

Nsobanukiwe ko:

Imfuruka ifunganye irutwa n'lmfuruka yagutse

Urugero: $135^\circ > 55^\circ$

- a) Imfuruka yagutse ya 135°



- b) Imfuruka ifunganye ya 55°



Nsuzuma ngusuzume

Shushanya imfuruka 2 zifunganye n'izindi 2 zagutse, ukoreshhe ingeramfuruka uzipime hanyuma ugereranye ibipimo byazo.



Reka nisuzume



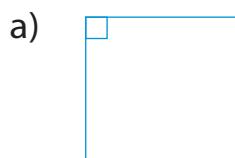
Shushanya amasaha y'inshinge akurikira upime imfuruka zikozwe n'inshinge zibara iminota n'amasaha.

- a) Isaha ibara saa kenda na mirongo ine n'itanu
- b) 8:30
- c) Isaha ibara saa tanu na cumi n'itanu.

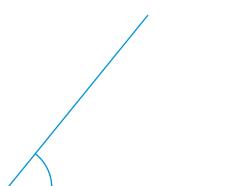
Imyitozo



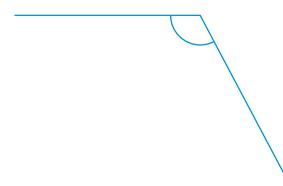
Pima izi mfuruka zikurikira ugereranye ingano yazo ukoreshheje $>$, $<$ na $=$



b)

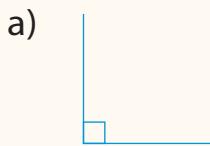


c)



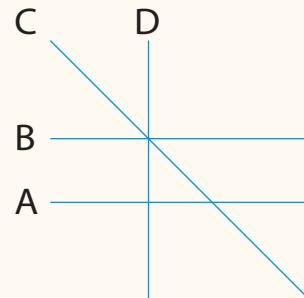
10.5 Isuzuma risoza umutwe wa 10

1) Koresha ingeramfuruka upime ingano y'izi mfuruka

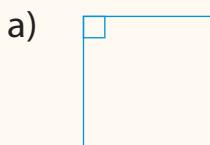


2) Itegerezze imirongo ikurikira uvuge amazina yazo:

- a) A na B ni imirongo
- b) C na D ni imirongo
- c) A na D ni imirongo
- d) B na D ni imirongo
- e) C na A ni imirongo
- f) B na C ni imirongo



3) Vuga amazina y'imfuruka zikurikira:



4) Koresha agacamurongo n'ingeramfuruka ushushanye imfuruka zifite:

- a) 56°
- b) 98°
- c) 170°
- d) 135°

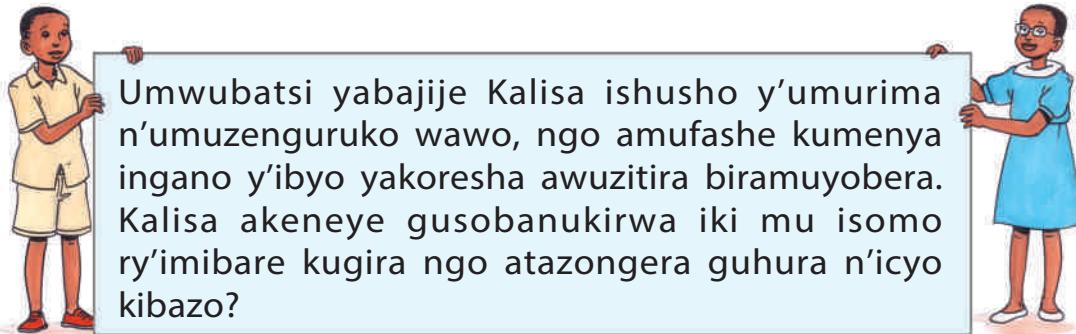
5) Shushanya

- a) Imirongo inyuranamo igakora imfuruka zigororotse.
- b) Imirongo ibiri iteganye.
- c) Imirongo inyuranamo igakora imfuruka zagutse n'izifunganye.

6) Subiza yego cyangwa oya

- a) Imfurukaigororotse iruta imfuruka yagutse.
- b) Imirongoigororotse iteganye ntishobora guhura.
- c) Imfurukaigororotse iruta imfuruka ifunganye.
- d) Imfuruka yagutse iruta imfuruka ifunganye.

Kare, urukiramende, mpandeshatu n'uruziga



Umwubatsi yabajije Kalisa ishusho y'umurima n'umuzenguruko waho, ngo amufashe kumenya ingano y'ibyo yakoresha awuzitira biramuyobera. Kalisa akeneye gusobanukirwa iki mu isomo ry'imibare kugira ngo atazongera guhura n'icyo kibazo?

11.1 Kare

A. Ibiranga Kare

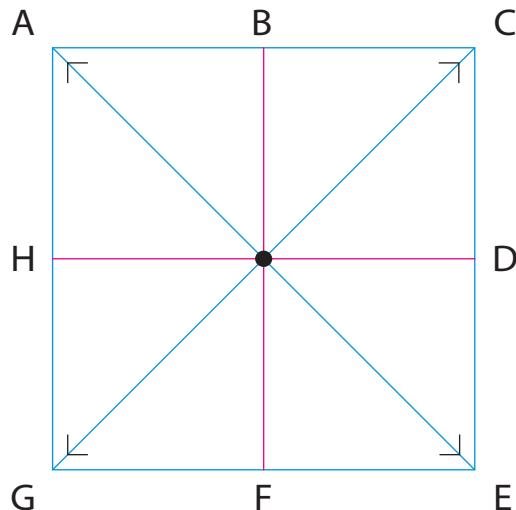
Igikorwa cya 1

Mwitegereze ishusho, mwigane ibirimo gukorwa.



Igikorwa cya 2

Mwitegerezze iyi kare, muvuge amazina y'imirongo ihuza inyuguti ziyiriho.



Nsobanukiwe ko:

Kare ni ikinyampande, kandi irangwa n'ibi bikurikira:

- Kare igira impande 4 zingana ($AC = CE = EG = AG$)
- Kare igira imfuruka 4 zigororotse
- Kare igira ingwagati 2 zingana (BF) na (HD)
- Kare igira impuzampembe 2 zingana (AE) na (CG)
- Ingwagati ni imirongo igororotse igabanyamo impande za kare ziteganye mo ibice bibiri bingana.
- Impuzampembe ni imirongo igorotse ihuza imfuruka 2 za kare ziteganye. Ingwagati n'impuzampembe bya kare bihurira mu kadomo rwagati k'imbere muri kare.

Igikorwa cya 3

Shushanya kare ifite cm 8 uyishyiremo ibi bikurikira:

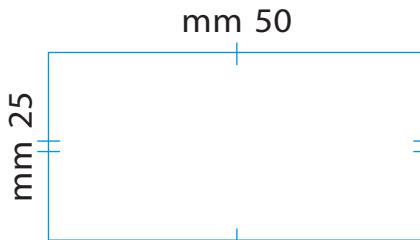
- Ingwagati
- Impuzampembe



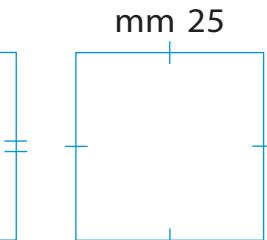
Reka nisuzume

1) Mu mashusho akurikira garagazamo kare

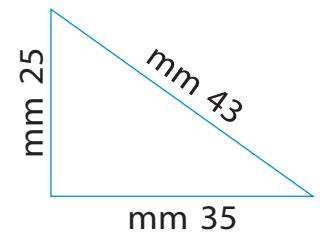
a)



b)



c)



2) Shushanya kare ifite cm 4 z'uruhande muyishyiremo ingwagati n'impuzampembe.



Nsuzuma ngusuzume

1) Mushake kandi muvuge ibintu bifite ishusho ya kare mu ishuri ryanyu.

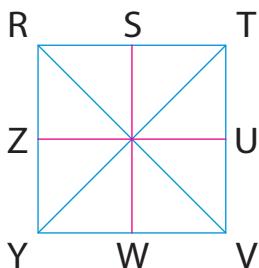
2) Mukore amashusho ya kare mu mpapuro cyangwa ibikarito, muyakate neza, muyamanike mu ishuri ryanyu.

Imyitozo



1) Muvuge ibintu muzi bigira ishusho ya kare.

2) Itegereze usubize ibibazo



Vuga amazina y'imirongo ikurikira:

a) RV:

b) ZU:

c) SW:

d) TY:

B. Umuzenguruko wa Kare

Igikorwa

- Mushushanye kare ifite cm 12 z'uruhande
- Muyizengurutseho akagozi. Mugakate

- Mupime buri ruhande muteranye uburebure bw'impande zose uko ari 4
- Mupime n'uburebure bwa ka kagozi
- Musobanure ibyo mubonye

Nsobanukiwe ko:

- Umuzenguruko wa kare ungana n'igiteranyo cy'uburebure bw'impande 4 ziyigize.
- Umuzenguruko = Uruhande + uruhande + uruhande + uruhande.
- Umuzenguruko wa kare ungana n'uburebure bw'uruhande rumwe inshuro 4.
- Umuzenguruko = Uruhande \times 4
- Uruhande rwa kare rungana n'umuzenguruko wa kare ugabanyije 4.
- Uruhande = Umuzenguruko : 4

Urugero:

- 1) Shaka umuzenguruko wa kare ifite cm 75 z'uruhande.
- 2) Shaka uburebure bw'uruhande rumwe rwa kare ifite cm 900 z'umuzenguruko.

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
1. Uruhande ni cm 75	Umuzenguruko	Umuzenguruko = uruhande \times 4 Umuzenguruko: $cm 75 \times 4 = cm 300$
2. Umuzenguruko ni cm 900	Uburebure bw'uruhande	Uruhande = umuzenguruko : 4 Uruhande: $cm 900 : 4 = cm 225$



Reka nisuzume



Shaka umuzenguruko wa kare ifite

- a) cm 125 z'uruhande
- c) cm 602 z'uruhande
- b) cm 407 z'uruhande
- d) cm 765 z'uruhande



Nsuzuma ngusuzume



- 1) Shaka uburebure bw'uruhande rumwe rwa kare ifite:
 - a) cm 640 z'umuzenguruko
 - b) cm 196 z'umuzenguruko
 - c) cm 312 z'umuzenguruko
 - d) cm 676 z'umuzenguruko
- 2) Shaka umuzenguruko w'ikibanza cya kare gifite uruhande rupima m 80.
- 3) Shaka uburebure bw'uruhande rw'umurima wa kare ifite m 1 700 z'umuzenguruko.

Imyitozo



- 1) Shaka umuzenguruko w'idirishya rya kare rifite uruhande rwa cm 145
- 2) Shaka uburebure bw'uruhande rumwe rw'ikibanza gifite ishusho ya kare ifite m 160 z'umuzenguruko.
- 3) Shaka umuzenguruko wa kare zikurikira

a)



25 cm

b)



35 cm

11.2 Urukiramende

A. Ibiranga urukiramende

Igikorwa cya 1

Mwitegereze ishusho
mwigane ibyo
barimo gukora

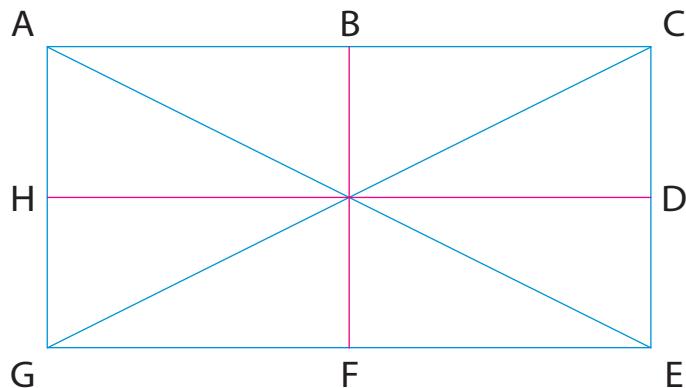


Igikorwa cya 2

Mushushanye urukiramende rufite cm 16 z'uburebure na cm 12 z'ubugari murwitegereze hanyuma muvuge ibiranga urukiramende. Mugendeye ku mpande zarwo n'imfuruka zarwo.

Igikorwa cya 3

Mwitegereze ishusho muvuge ibiranga urukiramende.



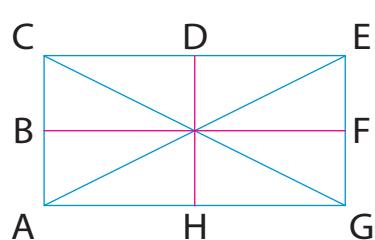
Nsobanukiwe ko:

- Urukiramende ari ishushongero rigira impande 4. Ebyiri ebyiri ziteganye zingana (Uruhande AC = uruhande GE naho uruhande A G = uruhande C E).
- Impande ndende kurusha izindi z'urukiramende zitwa uburebure.
- Uruhande AC n'uruhande GE ni uburebure bw'urukiramende ACEG
- Impande ngufi kurusha izindi z'urukiramende zitwa ubugari.
- Uruhande AG n'uruhande CE ni ubugari bw'urukiramende ACEG
- Urukiramende rugira imfuruka 4 zigororotse.
- Urukiramende rugira ingwagati 2 zingana (BF) na (HD)
- Urukiramende rugira impuzampembe 2 na zo zingana (AE) na (CG) (ebyiri zinganya uburebure, n'izindi ebyiri zinganya ubugari)



Nsuzuma ngusuzume

Mwitegerezze uru rukiramende muvuge amazina yimirongo



a)	AC	ni ____	e)	AE	ni ____
b)	CG	ni ____	f)	HD	ni ____
c)	AG	ni ____	g)	GE	ni ____
d)	BF	ni ____	h)	FE	ni ____



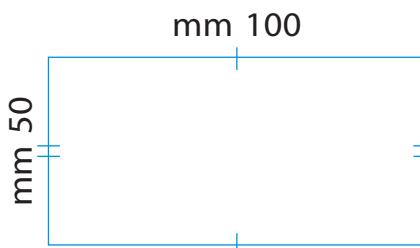
Reka nisuzume



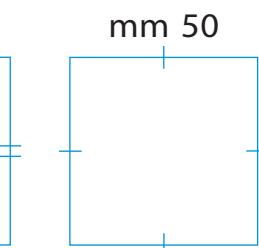
- 1) Mushushanye urukiramende rufite uburebure bwa cm 7 n'ubugari bwa cm 5 murushyiremo ingwagati n'impuzampembe.

2) Mu mashusho akurikira mugaragazemo urukiramende.

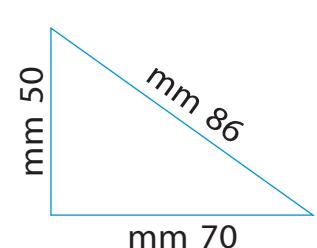
a)



b)



c)



Imyitozo



- 1) Shaka ibintu bifite ishusho y'urukiramende mu ishuri
- 2) Kora amashusho y'urukiramende mu mpapuro cyangwa mu bikarito uyakate neza, uyamanike mu ishuri ryanyu
- 3) Vuga ibintu uzi bigira ishusho y'urukiramende.

B. Gushaka umuzenguruko w'urukiramende

Igikorwa

- Mushushanye urukiramende rwa cm 20 z'uburebure na cm 10 z'ubugari
- Muruzengurutseho akagozi maze mugakate
- Mupime buri ruhande muteranye uburebure bw'impande zose uko ari 4
- Mupime n'uburebure bwa ka kagozi
- Musobanure ibyo mubonye.

Nsobanukiwe ko:

- Umuzenguruko w'urukiramende ungana n'igiteranyo cy'uburebure bw'impande zose.
- Umuzenguruko = Uburebure (L) + Uburebure (L) + Ubugari (l) + Ubugari (l).
- Umuzenguruko = Uburebure (L) + Ubugari (l) \times 2

Urugero:

Shaka umuzenguruko w'urukiramende rufite cm 56 z'ubugari na cm 74 z'uburebure.

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
Uburebure = cm 74 Ubugari = cm 56	Umuzenguruko	Umuzenguruko = $(L + l) \times 2$ Umuzenguruko: $(cm\ 74 + cm\ 56) \times 2$ = cm 260



Nsuzuma ngusuzume

Shaka umuzenguruko w'urukiramende rufite:

- a) Uburebure bwa cm 350 n'ubugari bwa cm 100
- b) Uburebure bwa cm 475 n'ubugari bwa cm 215
- c) Uburebure bwa cm 564 n'ubugari bwa 245
- d) Uburebure bwa cm 368 n'ubugari bwa cm 162



Reka nisuzume



- 1) Shaka umuzenguruko w'umurima ufile ishusho y'urukiramende rwa m 570 z'uburebure na m 450 z'ubugari.
- 2) Shaka umuzenguruko w'urugi rw'igipangu rupima cm 750 z'uburebure na cm 250 z'ubugari

Imyitozo



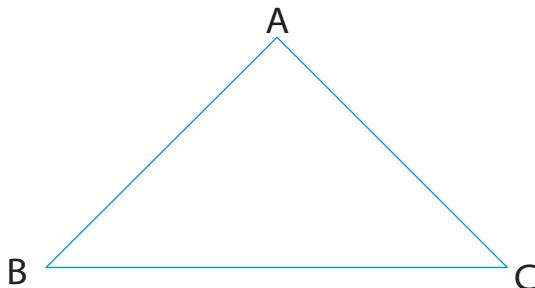
- 1) Shaka umuzenguruko w'urukiramende rufite:
 - a) Uburebure bwa cm 124 n'ubugari bwa cm 98
 - b) Uburebure bwa cm 259 n'ubugari bwa cm 198
 - c) Uburebure bwa cm 412 n'ubugari bwa cm 395
- 2) Shaka umuzenguruko w'ikibanza gifite ishusho y'urukiramende rwa m 63 z'uburebure na m 39 z'ubugari.
- 3) Shaka umuzenguruko w'ameza yo mu ruganiriro apima cm 250 z'uburebure na cm 150 z'ubugari

11.3 Mpandeshatu

A. Ibiranga mpandeshatu

Igikorwa cya 1

Mwitegerezze ishusho muyiganireho muvuge ibiyiranga.



Nsobanukiwe ko:

Mpandeshatu ni ishushongero rigizwe n'impande 3
n'imfuruka 3.

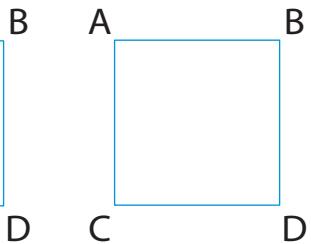
Igikorwa cya 2

Mu mashusho akurikira mugaragazemo mpandeshatu

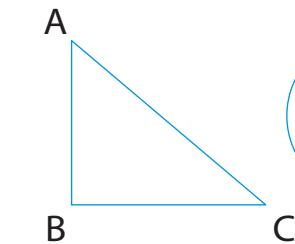
a)



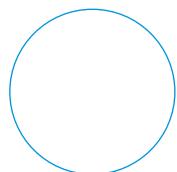
b)



c)



d)



Igikorwa cya 3

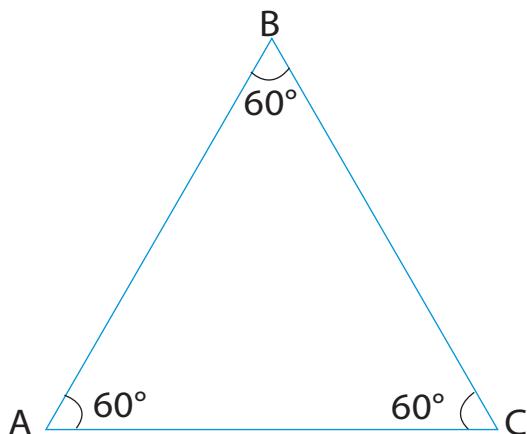
- Mushake ibintu bifite ishusho ya mpandeshatu mu ishuri ryanyu.
- Mukore amashusho ya mpandeshatu mu mpapuro cyangwa mu bikarito, muyakate neza, muyamanike mu ishuri ryanyu.
- Muvuge ibindi bintu muzi bigira ishusho ya mpandeshatu.

B. Amoko ya mpandeshatu

1. Mpandeshatu ndinganire

Igikorwa cya 1

Mwitegerezze iyi mpandeshatu, mupime impande n'imfuruka byayo maze muvuge ibiyiranga.



Nsobanukiwe ko:

Mpandeshatu ndinganire igira:

- Impande 3 zingana (Uruhande AB = Uruhande BD= Uruhande CA)
- Imfuruka 3 zingana imwe ipima dogere 60.
- Imfuruka zose za mpandeshatu ndinganire zipima dogere 180 ($60^\circ \times 3 = 180^\circ$)

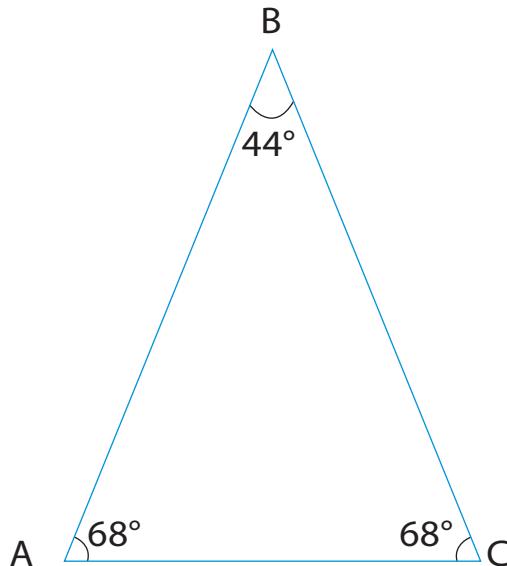
Igikorwa cya 2

- a) Mushake ibintu bifite ishusho ya mpandeshatu ndinganire biri mu ishuri ryanyu.
- b) Mukore amashusho ya mpandeshatu ndinganire mu mpapuro cyangwa mu bikarito, muyakate neza, muyamanike mu ishuri ryanyu.
- c) Muvuge ibindi bintu muzi bigira ishusho ya mpandeshatu ndinganire.

2. Mpandeshatu nyampanga

Igikorwa cya 1

Mwitegerezze iyi mpandeshatu, mupime impande n'imfuruka byayo maze muvuge ibiyiranga.



Nsobanukiwe ko:

Mpandeshatu nyampanga igira:

- Impande 2 zingana (Uruhande AB = Uruhande BC)
- Imfuruka 2 zingana (BAC = BCA).
- Igiteranyo k'imfuruka zose za mpandeshatu ni dogere 180.

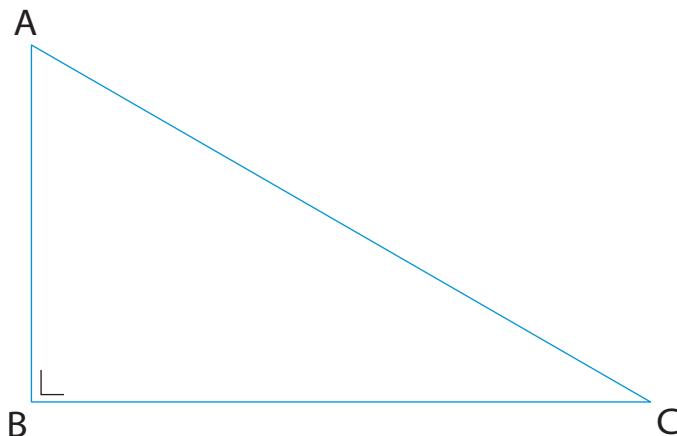
Igikorwa cya 2

- a) Mushake ibintu bifite ishusho ya mpandeshatu nyampanga biri mu ishuri ryanyu
- b) Mukore amashusho ya mpandeshatu nyampanga mu mpapuro cyangwa mu bikarito, muyakate neza, muyamanike mu ishuri ryanyu
- c) Muvuge ibindi bintu muzi bigira ishusho ya mpandeshatu nyampanga.

3. Mpandeshatu nyanguni

Igikorwa cya 1

Mwitegerezze iyi mpandeshatu, mupime impande n'lmfuruka byayo maze muvuge ibiyiranga.



Nsobanukiwe ko:

Mpandeshatu nyanguni igira:

- Impande 3 zitangana
- Imfuruka 1 igororotse n'lmfuruka 2 zifunganye
- Igiteranyo k'lmfuruka zose za mpandeshatu ni dogere 180.

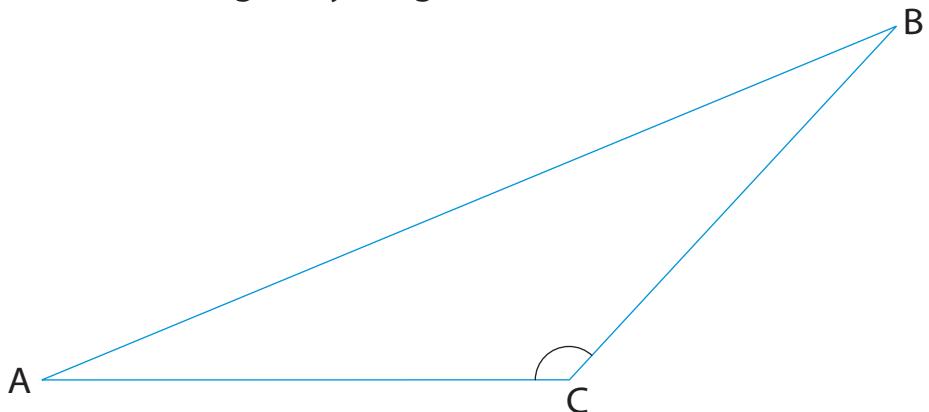
Igikorwa cya 2

- a) Mushake ibintu bifite ishusho ya mpandeshatu nyanguni biri mu ishuri ryanyu.
- b) Mukore amashusho ya mpandeshatu nyanguni mu mpapuro cyangwa mu bikarito, muyakate neza, muyamanike mu ishuri ryanyu.
- c) Muvuge ibindi bintu muzi bigira ishusho ya mpandeshatu nyanguni.

4. Mpandeshatu ibonetse yose

Igikorwa cya 1

Mwitegerezze iyi mpandeshatu, mupime impande n'ifuruka byayo maze muvuge ibiyiranga.



Nsobanukiwe ko:

Mpandeshatu ibonetse yose igira:

- Impande 3 zitangana
- Ifuruka 1 yagutse n'ifuruka 2 zifunganye
- Igiteranyo k'ifuruka zose za mpandeshatu ni dogere 180.

Igikorwa cya 2

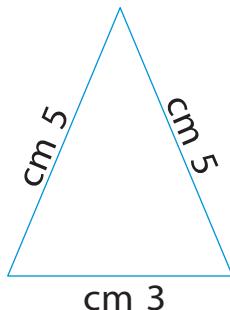
- a) Shaka ibintu bifite ishusho ya mpandeshatu ibonetse yose biri mu ishuri ryanyu.
- b) Mukore amashusho ya mpandeshatu ibonetse yose mu mpapuro cyangwa mu bikarito, muyakate neza, muyamanike mu ishuri ryanyu.
- c) Vuga ibintu uzi bigira ishusho ya mpandeshatu ibonetse yose.



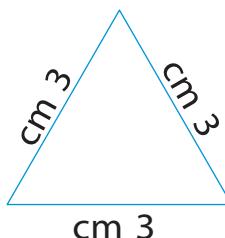
Nsuzuma ngusuzume

Vuga amazina y'izi mpandeshatu

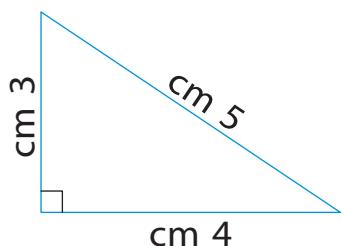
a)



b)



c)



Reka nisuzume



Uzuza izi nteruro

- Igiteranyo k'imfuruka zose za mpandeshatu ni dogere __
- Mpandeshatu ndinganire igira impande __ zingana n'imfuruka __ zingana.
- Imfuruka imwe yo muri mpandeshatu ndinganire ipima dogere __
- Mpandeshatu igira impande ebyiri zingana yitwa __
- Mpandeshatu __ igira imfuruka imwe igorotse.
- Mpandeshatu nyampanga igira imfuruka __ zingana.

B. Umuzenguruko wa mpandeshatu

Igikorwa

Mushushanye mpandeshatu mushatse, mupime buri ruhande rwayo, mwandike igipimo cyarwo, mubiteranye musobanure ibyo mubonye.

Nsobanukiwe ko:

- Umuzenguruko wa mpandeshatu ungana n'igiteranyo cy'uburebure bw'impande 3 ziyigize.
- Umuzenguruko = Uruhande + Uruhande + Uruhande
- Umuzenguruko wa mpandeshatu ndinganire ungana n'uburebure bw'uruhande rumwe ukubye 3.
Umuzenguruko = Uruhande \times 3
- Uburebure bw'uruhande rwa mpandeshatu ndinganire bungana n'umuzenguruko wayo ugabanyije 3.
Uruhande = umuzenguruko : 3

Urugero:

Shaka umuzenguruko wa mpandeshatu ifite impande zipima cm 145, cm 172 na cm 159

Ibyo mfite	Ibyo mbazwa	Inzira n'igisubizo
<ul style="list-style-type: none">• Uruhande rwa 1 ni cm 145• Uruhande rwa 2 ni cm 172• Uruhande rwa 3 ni cm 159	Umuzenguruko	<ul style="list-style-type: none">• Umuzenguruko: Uruhande + uruhande + uruhande• Umuzenguruko: cm 145 + cm 172 + cm 159 = cm 476



Nsuzuma ngusuzume

Mushake umuzenguruko wa mpandeshatu ifite impande zikurikira:

- a) cm 230, cm 250 na cm 350
- b) cm 150, cm 150 na cm 150
- c) dm 270, dm 270 na dm 110
- d) cm 75, cm 59 na cm 68



Reka nisuzume



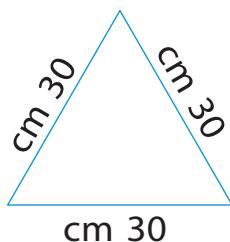
- 1) Shaka umuzenguruko wa mpandeshatu ndinganire ifite cm 97 z'uruhande.
- 2) Shaka umuzenguruko w'umurima ufile ishusho ya mpandeshatu ndinganire upima cm 195 z'uruhande.

Imyitoto

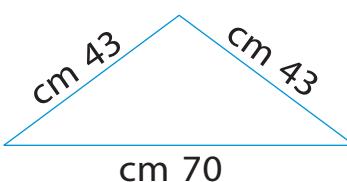


Shaka umuzenguruko w'izi mpandeshatu

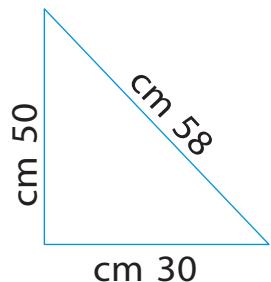
a)



b)



c)



11.4 Uruziga

1. Ibiranga uruziga

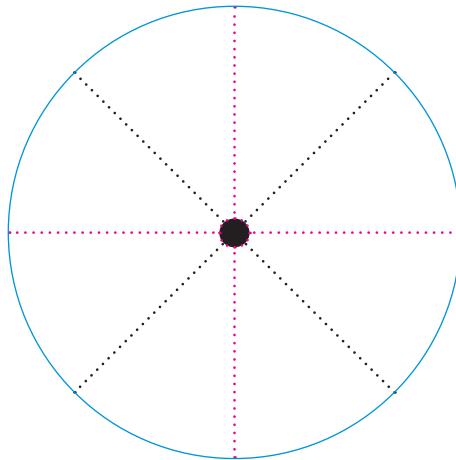
Igikorwa cya 1

Mwitegerezze amashusho akurikira muvuge ibyo muyabonaho. Buri shusho ifite impande zingahe? Imfuruka zingahe?



Igikorwa cya 2

Mwitegerezé iyi shusho, muvuge izina ryayo n'ibiyiranga:

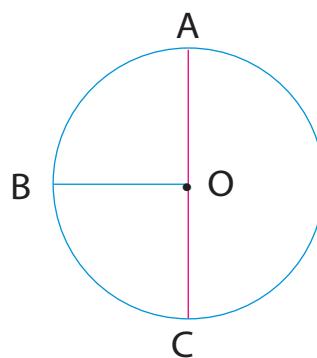


Nsobanukiwe ko:

- Uruziga ari itsinda ry'utudomo turi ku ntera ingana uvuye mu izingiro.
- Iryo tsinda ry'utudomo ni ryo rikora umuzenguruko w'uruziga.
- Izingiro ni akadomo rwagati ko mu ruziga.

Igikorwa cya 3

Mwitegerezé mutahure ibigize uruziga munabisobanure.



Nsobanukiwe ko:

- Akarambararo ni akarongo kagororotse kava mu izingiro kakagera ku murongo w'uruziga.
- Umurambararo ni umurongo ugororotse wambukiranya uruziga unyuze mu izingiro
- Umurambararo ungana n'akarambararo inshuro 2.
- Akarambararo kangana n'umurambararo ugabanyije 2.
- Izingiro ni ryo baheraho mu gushushanya uruziga. Umuzenguruko w'uruziga ni umurongo warwo ufunze.



Igikorwa cya 4

Mushushanye uruziga mukoreshjeje agacaruziga.
Musobanure uko mwabikoze.



Reka nisuzume



- 1) Shaka ibintu bifite ishusho y'uruziga biri mu ishuri ryawe.
- 2) Vuga ibindi uzi bifite ishusho y'uruziga
- 3) Uzuza izi nteruro
 - a) Umurambararo ni inshuro 2 z' ____
 - b) Akarambararo ni kimwe cya kabiri cy' ____
 - c) Inshuro 2 z'akarambararo ni ____
 - d) Akadomo ko hagati mu ruziga kitwa ____
 - e) Umurongo unyura mu izingiro ugabanyamo uruziga ibice 2 bingana witwa ____

Nsobanukiwe ko:

Agacaruziga ari igikoresho gikoreshwa mu gushushanya uruziga.

Iyo ushushanya uruziga ukora ibi bikurikira:

- Ugenzura ko aho agacaruziga gafungiye hafunze neza.
- Ushyiramo ikaramu y'igit i ureshyeshya neza n'urushingi rw'agacaruziga warangiza ugafunga neza
- Wandika akadomo kaza kuba izingiro ry'uzuziga rwawe
- Ukoresha agacamurongo ugaca akarambararo k'uruziga
- Ushinga urushingi rw'agacaruziga kawe mu izingiro ry'uruziga rwawe.
- Ufungura agacaruziga kawe maze ugashyira ikaramu y'igit i ku mpera y'akarambararo kawe.
- Uzengurutsa ya karamu y'igit i ushushanya uruziga ariko ugenzura ko urushingi rw'agacaruziga kawe rutavuye mu izingiro kugeza ugarutse aho wahereye.



Nsuzuma ngusuzume

- Koresha agacaruziga ushushanye uruziga ugaragaze izingiro, akarambararo n'umurambararo warwo.
- Ca uruziga ruriho izingiro, akarambararo n'umurambararo ku mpapuro cyangwa ibikarito maze urumanike mu ishuri.

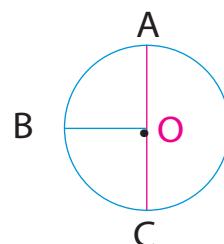
Imyitozo



Itegereze uruziga usubize

Vuga amazina y'imirongo ikurikira:

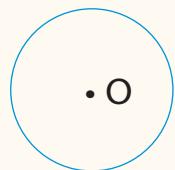
- | | |
|----------------|----------------|
| a) OD ni _____ | d) AC ni _____ |
| b) OB ni _____ | e) OE ni _____ |
| c) BE ni _____ | f) OA ni _____ |



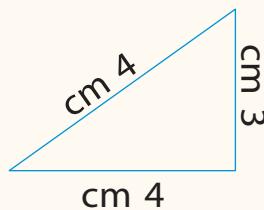
11.5 Isuzuma risoza umutwe wa 11

1) Itegereze amashusho akurikira, uvuge amazina yayo.

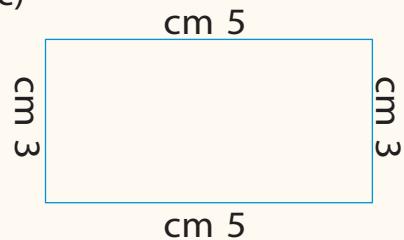
a)



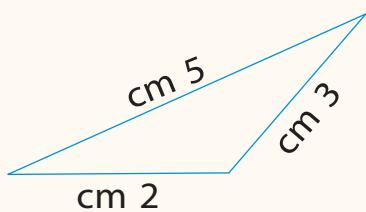
b)



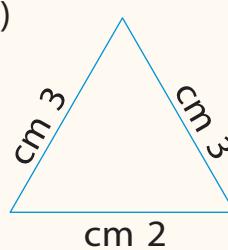
c)



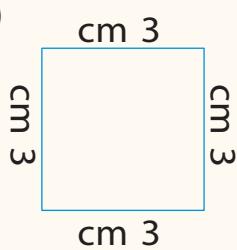
d)



e)



f)



2) Shushanya:

- a) Mpandeshatu ndinganire ifite uruhande rwa cm 16
- b) Kare ifite uruhande rwa cm 13
- c) Urukiramende rufite cm 10 z'ubugari na cm 20 z'uburebure
- d) Uruziga rufite cm 8 z'akarambararo

3) Shaka umuzenguruko wa :

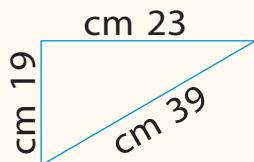
- a) Kare ifite cm 135 z'uruhande
- b) Urukiramende rufite cm 364 z'uburebure na cm 132 z'ubugari
- c) Mpandeshatu ifite impande zingana na cm 605, cm 235, cm 385

4) Subiza yego cyangwa oya

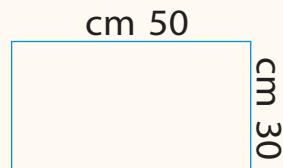
- a) Kare igira imfuruka zagutse
- b) Urukiramende rugira imfuruka zigororotse
- c) Akarambararo karuta umurambararo
- d) Izingiro ni akadomo rwagati ko mu ruziga.
- e) Mpandeshatu nyampanga igira impande 3 zingana.

5) Shaka umuzenguruko w'aya mashusho

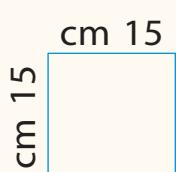
a)



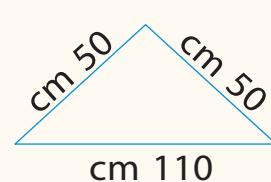
b)



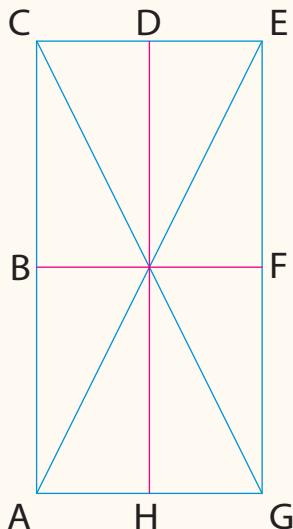
c)



d)

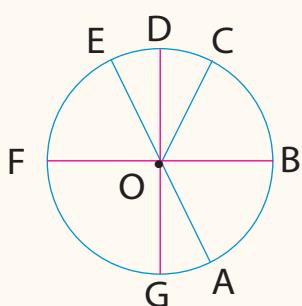


6) Itegerezze ibi binyampande usubize



a) Vuga amazina y'imirongo n'ibinyampande bikurikira:

- 1) AC ni ____
- 2) CG ni ____
- 3) AG ni ____
- 4) BF ni ____
- 5) AEG ni ____
- 6) HD ni ____
- 7) GECA ni ____
- 8) CEA ni ____



b) Vuga amazina y'imirongo ikurikira

- 1) AE ni ____ 6) OA ni ____
- 2) OB ni ____ 7) OF ni ____
- 3) FD ni ____ 8) OE ni ____
- 4) OC ni ____ 9) DG ni ____
- 5) OD ni ____ 10) OG ni ____

Ikinyatuzu

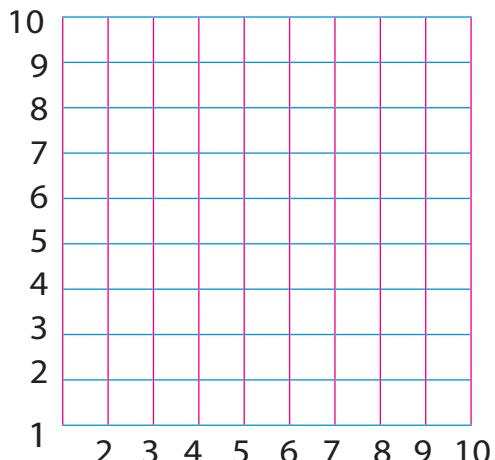


Habaye irushanwa ryo gushushanya ikinyatuzu hagashyirwamo ibinyampande nka kare cyangwa mpandeshatu. Uwahagarariye ishuri ryacu yikoreye utuzu gusa arekera aho. Sobanura ibyo atabashije gukora n'uko yari kubikora.

12.1 Ibiranga ikinyatuzu

Igikorwa cya 1

Mwitegerezze ikinyatuzu gikurikira, mukigane, muvuge ubwoko bw'imirongo icyubatse n'umubare wayo.



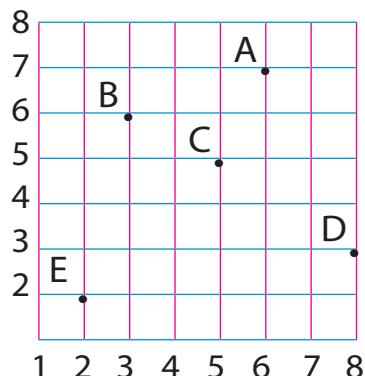
Nsobanukiwe ko:

- Ikinyatuzu kigizwe n'imirongo ihagaze yitwa inkingi n'indi itambitse yitwa imbariro.
- Gushyira inomero ku nkingi uhera ibumoso ujya iburyo.
- Gushyira inomero ku mbariro uhera hasi ujya hejuru.

12.2 Kuranga akadomo mu kinyatuzu

gikorwa cya 1

Mwitegerezze iki kinyatuzu murange utudomo A, B, C, D na E



Urugero:

- Akadomo A kari ku nkingi ya 6 n'urubariro rwa 7 → A(6,7)
- Akadomo B kari ku nkingi ya 3 n'urubariro rwa 6 → B(3,6)

Nsobanukiwe ko:

- Ibirango by'akadomo mu kinyatuzu biba bigizwe n'imibare 2.
- Umubare wa mbere werekana inkingi, uwa kabiri werekana urubariro.



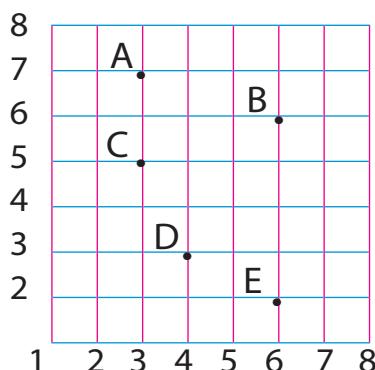
Nsuzuma ngusuzume

Mwubake ikinyatuzu kigizwe n'inkingi 6 n'imbariro 6

Mushyiremo utudomo: A (2, 4) B (4, 3) C (3, 2)

Igikorwa cya 2

Murange utudomo turi mu kinyatuzu gikurikira

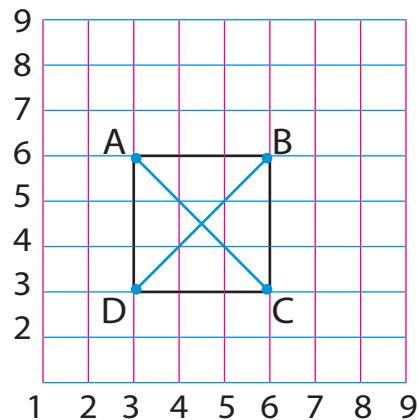


12.3 Gushushanya amashushongero mu kinyatuzu no kuranga impembe zayo

A. Gushushanya kare mu kinyatuzu

Igikorwa cya 1

Mwitegerezze iki kinyatuzu musobanure uko cyubatswe, ibyo kerekana hanyuma mupime impande z'ishusho irimo. Muvuge ubwoko bw'ijo shusho.



Igikorwa cya 2

Shushanya ikinyatuzu kigizwe n'inkingi 10 n'imbariro 10 maze ushyiremo ibi bikurikira:

- Shyira akadomo A ku nkingi ya 3 no ku rubariro rwa 2
- Shyira akadomo B ku nkingi ya 8 no ku rubariro rwa 2
- Shyira akadomo C ku nkingi ya 3 no ku rubariro rwa 7
- Shyira akadomo D ku nkingi ya 8 no ku rubariro rwa 7
- Huza utudomo: A na C D na B
 C na D A na B
- Muvuge ubwoko bw'ishusho ABDC

Nsobanukiwe ko:

Iyo ushushanya kare mu kinyatuzu ukora ibi bikurikira:

- Banza ushyire utudomo mu mahuriro y'inkingi n'imbariro baguhaye.
- Huza utudomo ukoresheje agacamurongo kugira ngo ubone ishusho wasabwe gushushanya.



Reka nisuzume

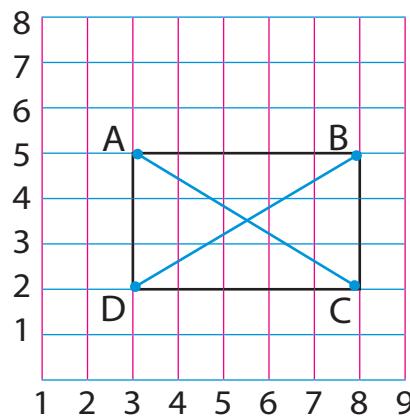


Shushanya ikinyatuzu ushaka, ushyiremo ishusho ya kare, hanyuma urange utudomo tugize impembe zayo.

B. Gushushanya Urukiramende mu kinyatuzu

Igikorwa cya 1

Mwitegereze iki kinyatuzu musobanure uko cyubatswe, ibyo kerekana hanyuma mupime impande z'ishusho irimo, kandi muvuge ubwoko bwayo.



Igikorwa cya 2

Mushushanye ikinyatuzu kigizwe n'inkingi 9 n'imbariro 9 maze mushyiremo ibi bikurikira:

- Mushyire akadomo A ku nkingi ya 2 ku rubariro rwa 3
- Mushyire akadomo B ku nkingi ya 8 ku rubariro rwa 3
- Mushyire akadomo C ku nkingi ya 2 ku rubariro rwa 6
- Mushyire akadomo D ku nkingi ya 8 ku rubariro rwa 6
- Muhuze utudomo: A na C D na B
 C na D A na B
- Musobanure ibyo mubonye maze mupime impande z'ikinyampande mwashyizemo.
- Muvuge izina ry'ikinyampande mubonye.

Nsobanukiwe ko:

Iyo ushushanya urukiramende mu kinyatuzu ukora ibi:

- Banza ushyire utudomo mu mahuriro y'inkingi n'imbariro baguhaye.
- Huza twatudomo wifashishije agacamurongo kugira ngo ubone ishusho wasabwe gushushanya.



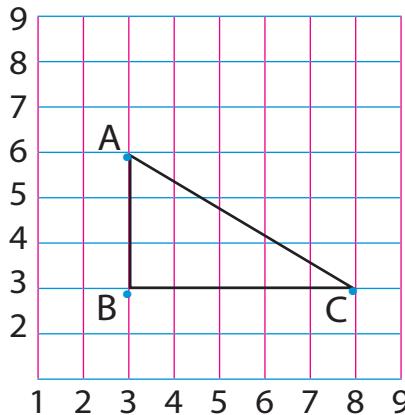
Nsuzuma ngusuzume

Shushanya ikinyatuzu ushaka, ushyiremo ishusho y'urukiramende. Ranga utudomo tugize impembe zayo.

C. Gushushanya mpandeshatu mu kinyatuzu

Igikorwa cya 1

Mwitegerezze iki kinyatuzu musobanure uko cyubatswe, ibyo kerekana hanyuma muvuge ubwoko bw'ishusho irimo.



Igikorwa cya 2

Mushushyanye ikinyatuzu kigizwe n'inkingi 8 n'imbariro 8 maze mushyiremo ibi bikurikira:

- Mushyire akadomo A ku nkingi ya 6 ku rubariro rwa 6
- Mushyire akadomo B ku nkingi ya 2 ku rubariro rwa 6
- Mushyire akadomo C ku nkingi ya 2 ku rubariro rwa 2
- Muhuze akadomo A n'akadomo B

- Muhuze akadomo A n'akadomo C
- Muhuze akadomo C n'akadomo B
- Musobanure ibyo mubonye maze muvuge ubwoko bw'ishushongero mwashyizemo.

Nsobanukiwe ko:

Iyo ushushanya mpandeshatu mu kinyatuzu ukora ibi:

- Banza ushyire utudomo mu mahuriro y'inkingi n'imbariro baguhaye.
- Huza twatudomo wifashishiye agacamurongo kugira ngo ubone ishusho wasabwe gushyiramo.



Reka nisuzume



- Shushanya ikinyatuzu k'inkingi 7 n'imbariro 7
- Ushyire akadomo A aho urubariro rwa 6 ruhurira n'inkingi ya 6
- Uhere kuri ako kadomo, ubare utundi tuzu 4 umanuka , ushyireho akadomo B
- Uhere kuri ako kadomo ubare utuzu 5 ujya ibumoso, ushyireho akadomo C.
- Uhuze utudomo C na B; B na A; C na A
- Uvuge izina rya mpandeshatu ubonye



Nsuzuma ngusuzume

Mushushanye ikinyatuzu gifite imbariro 10 n'inkingi 10.

Mushushanye mpandeshatu ihuza utu tudomo:

A (4, 6); B (2, 2); C (6, 2)

Imyitoto



Mushushanye ibinyatuzu mushaka, mushyiremo amashusho:

- a) Urukiramende
- b) Kare
- c) Mpandeshatu
- d) Murange utudomo tugize impembe za buri shusho.

Igikorwa cya 3

Muganire musobanura aho bakoresha ikinyatuzu mu buzima busanzwe

12.4 Isuzuma risoza umutwe wa 12

- 1) Itegerewe iki kinyatuzu maze usubize

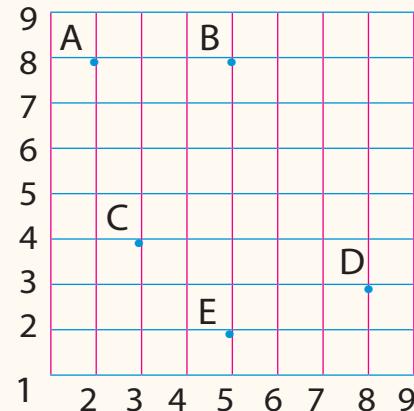
A (__, __)

B (__, __)

C (__, __)

D (__, __)

E (__, __)

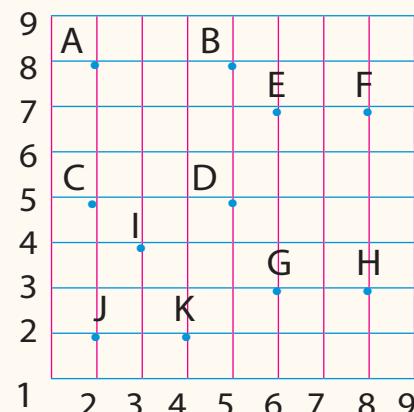


- 2) Vuga amashusho wabona uhije utudomo ku buryo bukurikira:

a) A, B, C na D

b) E ,F, G, H

c) I, J, K



- 3) Shushanya ikinyatuzu k'inkingi 7 n'imbariro 7 ushyiremo utudomo dukurikira: A (4, 3); B (2, 6); na C (5, 7). Huza utwo tudomo uvuge ishusho ubonye.

Umubare ubura mu iteranya, ikuramo, ikuba, n'igabanya



Habayeho irushanwa Mugenzi na Ishimwe baratsinda. Babahitishamo gutwara amakayi 10 agura F 400 imwe cyangwa amakaramu 50 agura F 100 imwe. Mugenzi ahitamo amakaramu, Ishimwe ahitamo amakayi. Ni inde wahisemo ibifite agaciro? Sobanura.

13.1 Gutahura umubare ubura mu iteranya

Igikorwa

Mutahure umubare ubura mukurijke urugero mwahawe

Urugero:

$$\begin{array}{r}
 1) \quad 2 \cdot 5 \quad 5 + \bullet = 8 \longrightarrow 8 - 5 = 3 \\
 \quad \quad \quad + 16 \cdot \quad \bullet + 6 = 9 \longrightarrow 9 - 6 = 3 \\
 \hline
 \quad \quad \quad 398
 \end{array}
 \qquad \qquad \qquad
 \begin{array}{r}
 235 \\
 + 163 \\
 \hline
 398
 \end{array}$$

$$\begin{array}{r}
 2) \quad \bullet \cdot 3 \cdot 5 \quad 5 + \bullet = 9 \longrightarrow 9 - 5 = 4 \\
 \quad \quad \quad + 1 \cdot 6 \cdot \quad \bullet + 6 = 7 \longrightarrow 7 - 6 = 1 \\
 \hline
 \quad \quad \quad 6\ 579 \quad 3 + \bullet = 5 \longrightarrow 5 - 3 = 2 \\
 \quad \quad \quad \quad \quad \quad \bullet + 1 = 6 \longrightarrow 6 - 1 = 5
 \end{array}
 \qquad \qquad \qquad
 \begin{array}{r}
 5\ 325 \\
 + 1\ 264 \\
 \hline
 6\ 589
 \end{array}$$

$$\begin{array}{l}
 a) \quad 6\ 3 \cdot 7 \\
 \quad \quad \quad + \bullet \cdot 4 \cdot \\
 \hline
 \quad \quad \quad 8\ 749
 \end{array}
 \qquad \qquad \qquad
 \begin{array}{l}
 b) \quad \bullet \cdot 8 \cdot 5 \\
 \quad \quad \quad + \bullet \cdot 1 \cdot 4 \\
 \hline
 \quad \quad \quad 8\ 049
 \end{array}
 \qquad \qquad \qquad
 \begin{array}{l}
 c) \quad 4 \cdot 8 \cdot \\
 \quad \quad \quad + \bullet \cdot 5 \cdot 1 \\
 \hline
 \quad \quad \quad 9\ 898
 \end{array}$$

Nsobanukiwe ko:

- Ufata igiteranyo ukavanamo umubare baguhaye.
- Ikinyuranyo ubonye ni wo mubare ubura mu iteranya.



Nsuzuma ngusuzume

a)
$$\begin{array}{r} 7 \cdot 8 \cdot \\ + \cdot 1 \cdot 2 \\ \hline 8 796 \end{array}$$

b)
$$\begin{array}{r} 2 \cdot 43 \\ + 1 3 \cdot 6 \\ \hline \cdot 75 \cdot \end{array}$$

c)
$$\begin{array}{r} \cdot 467 \\ + 4 \cdot \cdot \cdot \\ \hline 6 798 \end{array}$$



Reka nisuzume

a)
$$\begin{array}{r} 6 \cdot 4 \cdot \\ + \cdot 4 \cdot 2 \\ \hline 9 745 \end{array}$$

b)
$$\begin{array}{r} 4 \cdot 67 \\ + \cdot 4 \cdot \cdot \\ \hline 6 798 \end{array}$$

c)
$$\begin{array}{r} \cdot 456 \\ + 4 5 \cdot \cdot \\ \hline 7 \cdot 79 \end{array}$$

13.2 Gutahura umubare ubura mu ikuramo

Igikorwa

Mutahure umubare ubura mukurikije urugero mwahawe

Urugero:

$$\begin{array}{rcl} 1) & \begin{array}{r} 6 543 \\ - 3 4 \cdot \cdot \\ \hline 3 131 \end{array} & \begin{array}{l} 3 - \cdot = 1 \rightarrow 3 - 1 = 2 \\ 4 - \cdot = 3 \rightarrow 4 - 3 = 1 \end{array} \rightarrow \begin{array}{r} 6 543 \\ - 3 4 \textcolor{blue}{1} 1 \\ \hline 3 132 \end{array} \\[10pt] 1) & \begin{array}{r} 7 \cdot 3 \cdot \\ - 6 211 \\ \hline 1 320 \end{array} & \begin{array}{l} \cdot - 1 = 0 \rightarrow 0 + 1 = 1 \\ \cdot - 2 = 3 \rightarrow 3 + 2 = 5 \end{array} \rightarrow \begin{array}{r} 7 \textcolor{teal}{5} 3 1 \\ - 6 211 \\ \hline 1 320 \end{array} \end{array}$$

a)
$$\begin{array}{r} 9 \cdot 6 \cdot \\ - 8 132 \\ \hline 1 430 \end{array}$$

b)
$$\begin{array}{r} 4 321 \\ - 2 \cdot 2 \cdot \\ \hline 2 2 \cdot 1 \end{array}$$

c)
$$\begin{array}{r} 7 767 \\ - 3 \cdot \cdot 5 \\ \hline 4 322 \end{array}$$



Nsuzuma ngusuzume

a)
$$\begin{array}{r} 2 130 \\ - 1 \cdot 2 \cdot \\ \hline 1 010 \end{array}$$

b)
$$\begin{array}{r} 6 \cdot \cdot 1 \\ - 3 420 \\ \hline 3 201 \end{array}$$

c)
$$\begin{array}{r} \cdot 456 \\ - 4 \cdot \cdot 5 \\ \hline 4 321 \end{array}$$

Nsobanukiwe ko:

Iyo ushaka umubare ubura mu ikuramo ukora ibi bikurikira:

- Iyo hari imibarwa ibura mu mubare ukurwamo, bafata uwo mu kinyuranyo bakongeraho uwo mu mubare ukurwamo.
- Iyo hari imibarwa ibura mu mubare ukurwamo bafata umubare ukurwamo bagakuramo uwo mu kinyuranyo.



Reka nisuzume



a)
$$\begin{array}{r} 5 \cdot 5 \cdot \\ - 1321 \\ \hline 4635 \end{array}$$

b)
$$\begin{array}{r} 4597 \\ - 1 \cdot 8 \cdot \\ \hline 3215 \end{array}$$

c)
$$\begin{array}{r} 59 \cdot \cdot \\ - 1653 \\ \hline 4321 \end{array}$$

Imyitozo



a)
$$\begin{array}{r} 6694 \\ - 13 \cdot \cdot \\ \hline 5320 \end{array}$$

b)
$$\begin{array}{r} 2799 \\ - \cdot \cdot \cdot \cdot \\ \hline 1540 \end{array}$$

c)
$$\begin{array}{r} \cdot \cdot \cdot \cdot \\ - 1452 \\ \hline 2321 \end{array}$$

13.3 Gutahura umubare ubura mu ikuba

Igikorwa

Mukurikize urugero mwahawe mutahure umubare ubura

Urugero: $7 \times \cdot = 1638 \rightarrow 1638 : 7 = 234 \rightarrow 7 \times 234 = 1638$

$$\begin{array}{r} 1638 \\ - 14 \\ \hline 023 \\ - 21 \\ \hline 028 \\ - 28 \\ \hline 00 \end{array}$$

- | | |
|----------------------------|----------------------------|
| a) $4 \times \cdot = 1000$ | d) $9 \times \cdot = 5076$ |
| b) $\cdot \times 5 = 8050$ | e) $8 \times \cdot = 6312$ |
| c) $\cdot \times 7 = 6615$ | f) $6 \times \cdot = 5922$ |

Nsobanukiwe ko:

Iyo ushaka umubare ubura mu ikuba ufata igikubo ukakigabanya igikuba cyangwa igikubwa.



Nsuzuma ngusuzume

a) $\cdot \cdot \cdot \cdot$

$$\begin{array}{r} \times 9 \\ \hline 1386 \end{array}$$

b) $\cdot \cdot \cdot \cdot$

$$\begin{array}{r} \times 8 \\ \hline 2592 \end{array}$$

c) $\cdot \cdot \cdot \cdot$

$$\begin{array}{r} \times 9 \\ \hline 4059 \end{array}$$



Reka nisuzume

a) $\cdot \cdot \cdot \cdot$

$$\begin{array}{r} \times 7 \\ \hline 4788 \end{array}$$

b) $\cdot \cdot \cdot \cdot$

$$\begin{array}{r} \times 6 \\ \hline 2952 \end{array}$$

c) $\cdot \cdot \cdot \cdot$

$$\begin{array}{r} \times 5 \\ \hline 9780 \end{array}$$

Imyitozo



a) $\cdot \cdot \cdot \cdot$

$$\begin{array}{r} \times 4 \\ \hline 9584 \end{array}$$

b) $\cdot \cdot \cdot \cdot$

$$\begin{array}{r} \times 3 \\ \hline 9867 \end{array}$$

c) $\cdot \cdot \cdot \cdot$

$$\begin{array}{r} \times 2 \\ \hline 9794 \end{array}$$

13.4 Gutahura umubare ubura mu igabanya

Igikorwa

Mukurikize urugero mwahawe mutahure umubare ubura

Urugero:

a) $450 : \bullet = 9 \rightarrow 450 : 9 = 50$

b) $\bullet : 5 = 245 \rightarrow 245 \times 5 = 1225$

a) $\bullet : 5 = 350$

d) $147 : \bullet = 7$

g) $9672 : \bullet = 3$

b) $360 : \bullet = 4$

e) $\bullet : 6 = 91$

h) $9819 : \bullet = 9$

c) $\bullet : 8 = 120$

f) $225 : \bullet = 3$

i) $\bullet : 586 = 9$

Nsobanukiwe ko:

- Iyo umubare ubura ari ikigabanya ufata ikigabanya ukagikuba ikigabanyo.
- Iyo umubare ubura ari ikigabanya ufata ikigabanya ukagabanya ikigabanyo.



Nsuzuma ngusuzume

a) $648 : \bullet = 8$ b) $729 : \bullet = 9$ c) $847 : \bullet = 7$



Reka nisuzume



a) $\bullet : 6 = 45$ b) $\bullet : 5 = 89$ c) $\bullet : 4 = 125$

Imyitozo



a) $8795 : \bullet = 5$ b) $\bullet : 9 = 818$ c) $9534 : \bullet = 6$

13.5 Inshoza y'inganyagaciro n'ikimenyetso cya =

A. Inganyagaciro mu iteranya

Igikorwa cya 1

Mwitegereze urugero muganire ku byakozwe.

Urugero:

- a) $100 + 25 = 90 + \bullet$ $\rightarrow (100 + 25) - 90 = 35$
 $\rightarrow 100 + 25 = 90 + 35$
- b) $45 + \bullet = 40 + 60$ $\rightarrow (40 + 60) - 45 = 55$
 $\rightarrow 45 + 55 = 40 + 60$
- c) $75 + 30 = \bullet + 25$ $\rightarrow (75 + 30) - 25 = 80$
 $\rightarrow 75 + 30 = 80 + 25$
- d) $\bullet + 90 = 270 + 80$ $\rightarrow (270 + 80) - 90 = 260$
 $\rightarrow 260 + 90 = 270 + 80$

Igikorwa cya 2

Mukurikize urugero mwahawe mu gikorwa cya 1 mutahure umubare ubura

- a) $80 + 30 = 50 + \bullet$ c) $265 + 35 = 250 + \bullet$
b) $150 + \bullet = 200 + 45$ d) $479 + 51 = 350 + \bullet$



Nsuzuma ngusuzume

- a) $913 + 97 = 803 + \bullet$ c) $\bullet + 597 = 987 + 519$
b) $\bullet + 575 = 195 + 875$ d) $825 + 795 = \bullet + 658$

Nsobanukiwe ko:

Iyo ushaka umubare ubura mu iteranya,
– Ufata imibare ibiri yatanzwe yegeranye ukayiteranya.
– Igiteranyo cyayo ukakivanamo umubare watanzwe uri wonyine.
– Ikinyuranyo ubona ni cyo wongera kuri wa mubare maze ibiteranyo by'yo mibare yombi bikaba bingana.



Reka nisuzume



- a) $875 + \bullet = 1\ 256 + 459$ c) $654 + 746 = \bullet + 598$
b) $\bullet + 1\ 575 = 2\ 145 + 875$ d) $1\ 208 + 726 = 576 + \bullet$

Imyitozo



- a) $1\ 758 + \bullet = 1\ 526 + 954$ c) $1\ 546 + 647 = \bullet + 985$
b) $\bullet + 575 = 215 + 758$ d) $2\ 801 + 1\ 267 = 2\ 567 + \bullet$

B. Inganyagaciro mu ikuramo

Igikorwa

Mukurikize urugero mwahawe mutahure umubare ubura.

Urugero:

- a) $\bullet - 95 = 180 - 25$ $\rightarrow (180 - 25) + 95 = 250$
 $\rightarrow 250 - 95 = 180 - 25$
b) $145 - \bullet = 175 - 65$ $\rightarrow 175 - 65 = 110$
 $\rightarrow 145 - 110 = 35$
c) $375 - 178 = \bullet - 265$ $\rightarrow (375 - 178) + 265 = 462$
 $\rightarrow 375 - 178 = 462 - 265$

- a) $235 - 45 = 540 - \bullet$ c) $430 - 180 = 320 - \bullet$
 b) $725 - \bullet = 600 - 10$ d) $978 - \bullet = 763 - 220$



Nsuzuma ngusuzume

- a) $685 - 175 = 1380 - \bullet$ c) $\bullet - 459 = 897 - 319$
 b) $185 - \bullet = 485 - 375$ d) $\bullet - 975 = 1785 - 995$

Nsobanukiwe ko:

Iyo ushaka umubare ubura mu ikuramo

- Ufata imibare ibiri yatanzwe yegeranye ukayikuramo.
- Ikinyuranyo cyayo ukacyongera ku mubare watanzwe uri wonyine.
- Hari n'isaba ko ubanza gukuramo imibare 2 yegeranye maze ikinyuranyo cyayo kikavanwa mu mubare uri wonyine mu kibazo.



Reka nisuzume



- a) $456 - \bullet = 564 - 298$ c) $\bullet - 345 = 856 - 534$
 b) $975 - \bullet = 721 - 432$ d) $\bullet - 548 = 729 - 509$

Imyitozo



- a) $765 - 348 = \bullet - 205$ c) $1567 - 1198 = 2018 - \bullet$
 b) $1234 - 978 = \bullet - 725$ d) $1453 - 832 = 1519 - \bullet$

C. Inganyagaciro mu ikuba

Igikorwa cya 1

Itegereze urugero usobanure ibyakozwe.

Urugero:

- | | | |
|---|---------------------------------|----------------|
| a) $6 \times 5 = \bullet \times 3 \rightarrow$ | $6 \times 5 = 30 \rightarrow$ | $30 : 3 = 10$ |
| b) $4 \times 12 = 8 \times \bullet \rightarrow$ | $4 \times 12 = 48 \rightarrow$ | $48 : 8 = 6$ |
| c) $3 \times \bullet = 20 \times 6 \rightarrow$ | $20 \times 6 = 120 \rightarrow$ | $120 : 3 = 40$ |
| d) $\bullet \times 9 = 45 \times 4 \rightarrow$ | $45 \times 4 = 180 \rightarrow$ | $180 : 9 = 20$ |

Igikorwa cya 2

Mukurikize urugero mwahawe mutahure umubare ubura.

a) $9 \times 18 = 6 \times \dots$

c) $\cdot \times 7 = 49 \times 3$

b) $36 \times 4 = 9 \times \dots$

d) $\cdot \times 5 = 75 \times 8$



Nsuzuma ngusuzume

a) $5 \times \cdot = 25 \times 8$

c) $88 \times 5 = \cdot \times 4$

b) $9 \times \cdot = 72 \times 3$

d) $98 \times 6 = \cdot \times 3$

Nsobanukiwe ko:

Iyo ushaka umubare ubura mu ikuba:

- Ufata imibare ibiri yatanzwe yegeranye ukayikuba.
- Igikubo cyayo ukakigabanya n'umubare ukeneye uwo byikuba ngo bingane n'igikubo k'iyo ibiri.



Reka nisuzume



a) $25 \times 8 = \cdot \times 2$

c) $125 \times 4 = \cdot \times 5$

b) $45 \times 8 = 6 \times \cdot$

d) $\cdot \times 9 = 27 \times 45$

Imyitozo



a) $\cdot \times 7 = 35 \times 84$

c) $3 \times \cdot = 76 \times 9$

b) $105 \times 89 = 5 \times \cdot$

d) $5 \times \cdot = 138 \times 65$

D. Inganyagaciro mu igabanya

Igikorwa cya 1

Itegereze urugero usobanure ibyakozwe.

Urugero:

a) $\cdot : 5 = 225 : 3 \rightarrow 225 : 3 = 75 \rightarrow 75 \times 5 = 375$

b) $120 : \cdot = 45 : 9 \rightarrow 45 : 9 = 5 \rightarrow 120 : 5 = 24$

c) $225 : 9 = \cdot : 8 \rightarrow 225 : 9 = 25 \rightarrow 25 \times 8 = 200$

d) $72 : 9 = 64 : \cdot \rightarrow 72 : 9 = 8 \rightarrow 64 : 8 = 8$

Igikorwa cya 2

Mukurikize ingero mwahawewe mutahure umubare ubura

- a) $824 : 8 = \bullet : 4$ c) $945 : 9 = \bullet : 3$
b) $\bullet : 9 = 2016 : 4$ d) $\bullet : 7 = 2020 : 5$



Nsuzuma ngusuzume

- c) $636 : 6 = \bullet : 2$ c) $90 : \bullet = 100 : 10$
b) $81 : \bullet = 72 : 8$ d) $546 : 6 = \bullet : 5$

Nsobanukiwe ko:

Iyo ushaka umubare ubura mu igabanya:

- Ufata imibare ibiri yatanzwe yegeranye ukayigabanya.
- Ikigabanyo cyayo ukagikuba n'umubare ukeneye uwo byigabanya ngo bingane n'ikigabanyo k'iyo ibiri.



Reka nisuzume



- a) $808 : 8 = \bullet : 4$ c) $918 : 9 = \bullet : 3$
b) $\bullet : 7 = 175 : 5$ d) $\bullet : 5 = 992 : 8$

Imyitozo



- a) $\bullet : 9 = 1950 : 6$ c) $2464 : 8 = \bullet : 9$
b) $\bullet : 8 = 436 : 4$ d) $12 : 4 = 9 : \bullet$

13.6 Gushaka umubare ubura mu rukurikirane rw'imibare

- A. Gushaka intera idahinduka yakoreshejwe mu rukurikirane rw'imibare ruhera ku mubare muto rujya ku mubare munini

Igikorwa

Mwitegerezze uko bashaka intera idahinduka yakoreshejwe mu rukurikirane rw'imibare hanyuma mukore imyitozo ikurikira.

Urugero:

a) $1\ 250, 1\ 300, 1\ 350, 1\ 400 \rightarrow \frac{50}{(1300 - 1250)} =$
 $\frac{50}{(1350 - 1300)} = \frac{50}{(1400 - 1350)}$ Intera idahinduka ni 50

b) $2\ 400, 2\ 500, 2\ 600, 2\ 700 \rightarrow \frac{100}{(2500 - 2400)} =$
 $\frac{100}{(2600 - 2500)} = \frac{100}{(2700 - 2600)}$ Intera idahinduka ni 100

- a) 855, 1 355, 1 855 b) 205, 505, 805, 1105



Nsuzuma ngusuzume

- a) 1 005, 1 075, 1 145 b) 239, 300, 361, 422

Nsobanukiwe ko:

Iyo ushaka intera idahinduka yakoreshejwe mu rukurikirane rw'imbare ruhera ku mubare muto rujya ku munini, ufata umubare wa kabiri ugakuramo umubare ubanza bityo bityo.



Reka nisuzume



Shaka intera idahinduka yakoreshejwe muri uru rukurikirane.

- a) 295, 333, 371, 409 b) 178, 299, 420, 541

Imyitozo



Shaka intera idahinduka yakoreshejwe muri uru rukurikirane.

- a) 397, 630, 863, 1096 b) 524, 700, 876, 1052

B. **Gushaka intera idahinduka yakoreshejwe mu rukurikirane rw'imbare ruhera ku mubare munini rujya ku mubare muto**

Igikorwa cya 1

Itegereze urugero usobanure ibyakozwe.

Urugero:

a) $324, 270, 216, 162 \rightarrow \frac{54}{(324 - 270)} = \frac{54}{(270 - 216)}$

$= \frac{54}{(216 - 162)}$ Intera idahinduka ni 54

b) $153, 125, 97, 72 \rightarrow \frac{28}{(153 - 125)} = \frac{28}{(125 - 97)}$

$= \frac{28}{(97 - 72)}$ Intera idahinduka ni 28

Igikorwa cya 2

Mukore imyitozo mukurikije urugero mwahawwe.

a) 2 456, 2 306, 2 156

c) 4 032, 3 957, 3 882

b) 1 890, 1 751, 1 612

d) 2 476, 3 000, 3 524



Nsuzuma ngusuzume

a) 2 018, 1 653, 1 288, 923

b) 956, 878, 800, 722

Nsobanukiwe ko:

Iyo ushaka intera idahinduka yakoreshejwe mu rukurikirane rw'imibare ruhereye ku mubare munini ujya ku muto ufata umubare ubanza ugakuramo uwukurikiye bityo bityo.



Reka nisuzume



Shaka intera idahinduka yakoreshejwe muri uru rukurikirane rw'imibare

a) 756, 641, 526, 411

b) 1 879, 1 811, 1 743

Imyitozo



Shaka intera idahinduka yakoreshejwe muri uru rukurikirane rw'imibare:

a) 1 519, 1 470, 1 421

c) 789, 691, 593, 495

b) 976, 937, 898, 859

C. Kuzuza imibare ibura mu rukurikirane rw'imibare

Igikorwa cya 1

Itegereze urugero usobanure ibyakozwe.

Urugero:

- a) 150, 850, 1 550, **2 250, 2 950, 3 650**
Intera idahinduka ni $850 - 150 = 700$
- b) 125, 250, 375, **500, 625, 750**
Intera idahinduka ni $250 - 125 = 125$
- c) 475, 400, 325, **250, 175, 100**
Intera idahinduka ni $475 - 400 = 75$
- d) 1249, 949, **649, 349, 49**
Intera idahinduka ni $1249 - 949 = 300$

Igikorwa cya 2

Mwitegere uko buzuza urukurikirane rw'imibare hanyuma mukore imyitozo.

- a) 3 456, 3 567, 3 678, _____, _____, _____
- b) 4 256, 4 365, 4 474, _____, _____, _____
- c) 1 994, 2 018, 2 042, _____, _____, _____



Nsuzuma ngusuzume

- a) 1 897, 1 950, 2 003, _____, _____, _____
- b) 7 564, 6 614, 5 664, _____, _____, _____

Nsobanukiwe ko:

Iyo wuzuza urukurikirane rw'imibare ubanza gushaka intera idahinduka yakoreshejwe hanyuma ukagenda uyongeraho cyangwa uyikuraho bitewe n'uko imibare itondetse.



Reka nisuzume



Uzuza imibare ibura muri uru rukurikirane rw'imibare

- a) 4 000, 4 500, 5 000, ___, ___, ___
- b) 3 480, 3 505, 3 530, ___, ___, ___

Imyitozo



- a) 5 469, 4 679, 3 889, ___, ___, ___
- b) 4 325, 3 875, 3 425, ___, ___, ___

13.7 Isuzuma risoza umutwe wa 13

1) Tahura imibare ibura

a) 1 787	b) • ...	c) 4 3 ..	d) ...
$\begin{array}{r} + 6 \cdot 1 \cdot \\ \hline 7 899 \end{array}$	$\begin{array}{r} \times 9 \\ \hline 2 187 \end{array}$	$\begin{array}{r} + \cdot \cdot 41 \\ \hline 8 296 \end{array}$	$\begin{array}{r} \times 8 \\ \hline 1 264 \end{array}$
e) 7 .. 6	f) • ...	g) 2 9 ..	
$\begin{array}{r} - 1 534 \\ \hline \cdot 42 \cdot \end{array}$	$\begin{array}{r} \times 6 \\ \hline 1 074 \end{array}$	$\begin{array}{r} - 1 376 \\ \hline 1 611 \end{array}$	
h) • : 4 = 903		j) • : 2 = 839	
i) • : 5 = 315		k) • : 6 = 221	

2) Uzuza izi nganyagaciro n'umubare ubura

a) $100 + 50 = 80 + \cdot$	d) $9 \times 8 = 18 \times \cdot$
b) $525 - \cdot = 400 - 75$	e) $25 \times 2 = 60 \times \cdot$
c) $978 - \cdot = 763 - 220$	f) $728 : 8 = \cdot : 4$

3) Shaka intera idahinduka yakoreshejwe muri uru rukurikirane rw'imibare

a) 234, 215, 196	d) 467, 431, 395
b) 745, 1 000, 1 255	e) 945, 882, 819
c) 834, 755, 676	f) 689, 713, 737

4) Uzuza uru rukurikirane rw'imibare

a) 1 250, 1 750, ___, ___, ___
b) 3 400, 3 100, ___, ___, ___
c) 2 525, 3 025, ___, ___, ___

Ibishushanyo byifashishwa mu kubara



Twasuye ikigo k'ibarurishamibare. Batwereka ibishushanyo bigaragaza imibare y'imodoka n'ubwoko bwazo byagenzuwe buri kwezi. Gatoki ahita avuga ko ari udutako. Ese wowe ubona hari icyo ibishushanyo biteye gutya bikwigisha mu mibare?

14.1 Igishushanyo kifashishwa hagaragazwa ingano y'ibantu

Igikorwa cya 1

Mwitegereze iyi shusho murebe ibantu biriho maze muvuge umubare wabyo kuri buri tsinda ry'ibantu.

10								
9								
8								
7								
6								
5								
4								
3								
2								
1								

Nsobanukiwe ko:

Mu kureba ingano y'ibintu ku gishushanyo ureba
umubare uringaniye na byo.

Igikorwa cya 2

Mwitegerezze ibintu biri kuri iki gishushanyo murebe imibare
biringaniye muyivuge maze aho bigarukira mushyiremo
ibara

12								
11								
10								
9								
8								
7								
6								
5								
4								
3								
2								
1								

14.2 Gukora amatsinda y'ibintu no kubyerekana ukoresheje igishushanyo

Igikorwa

Mwitegerezay aya mashusho muvangure ibintu biriho mubigaragaze ku gishushanyo.



11								
10								
9								
8								
7								
6								
5								
4								
3								
2								
1								

14.3 Gusesengura ibishushanyo binyuranye byifashishwa mu mibare hagaragazwa ingano y'ibantu

Igikorwa

Mwitegerezze ibishushanyo bikurikira muvuge ingano y'bintu biraho.

A.

8							
7							
6							
5							
4							
3							
2							
1							

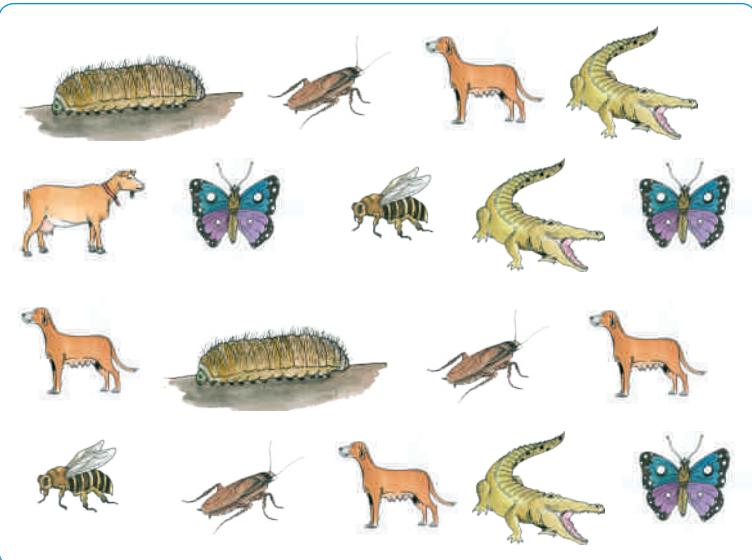
B.

9							
8							
7							
6							
5							
4							
3							
2							
1							

14.4 Gukora igishushanyo kifashishwa mu kubara uhereye ku byatanzwe

Igikorwa cya 1

Mukore igishushanyo kifashishwa mu kubara mugaragazeho
ibintu bikurikira:



Igikorwa cya 2

Mukore igishushanyo kifashishwa mu kubara mugaragazeho
ibintu bikurikira:



14.5 Isuzuma risoza umutwe wa 14

- 1) Mushushanye ibikoresho 5 byo mu rugo bitandukanye. Mubishyire ku gishushanyo kigaragaza ingano y'ibyo mwahisemo, mukore amatsinda atandukanye y'ibikoresho bitanu buri tsinda.
- 2) Mushushanye ibikoresho 5 byo mu ishuri bitandukanye. Mubishyire ku gishushanyo kigaragaza ingano y'ibyo mwahisemo, mushyiremo amabara abigaragaza neza. Mukore amatsinda atandukanye y'ibikoresho.
- 3) Barura ibikoresho byo mu ishuri ufile maze werekane ingano yabyo wifashishihe igishushanyo.
- 4) Mwitegerezze ibishushanyo mubisesengure musobanure ibyo mwabonye:

7							
6							
5							
4							
3							
2							
1							

15. Urugero rw'isuzuma risoza umwaka wa 3

- A. Ibara n'amategeko yaryo
- 1) Andika mu mibare cyangwa mu magambo
- a) Ibihumbi ikenda magana atatu na cumi n'umunani:
 - b) 7 546:
 - c) Ibihumbi bitanu magana arindwi na mirongo ine na gatatu:
 - d) 6 978:
- 2) Andika imibare ikurikira mu mbonerahamwe y'ibara
- a) 5 478
 - b) 7 231
 - c) 9 768
- 3) Andika umubare wasesenguwe
- a) h 7 j 6 c 5 b8 =
 - b) h 9 c 6 b 7 =
 - c) h 6 j9 c 3 b4 =
- 4) Gereranya ukoresheje <, > na =
- a) 7 865 7 685
 - c) 8 798 8 798
 - b) 9 456 9 546
 - d) 5 798 5 987
- 5) Tondeka uhoreye ku muto ujya ku munini
- a) 5 768, 5 678, 5 786, 5 687
 - b) 8 769, 8 796, 8 976, 8 967
- 6) Tondeka uhoreye ku munini ujya ku muto
- a) 6 435, 6 354, 6 453, 6 345
 - b) 9 567, 9 675, 9 576, 9 657
- 7) Shaka igiteranyo
- a) 5 785 + 2 957 =
 - b) 4 678 + 5 099 =
- 8) Shaka ikinyuranyo
- a) 9 123 – 7 987 =
 - b) 8 005 – 5 678 =
 - c) 7 234 – 6 789 =
- 9) Shaka igikubo
- a) $82 \times 65 =$
 - b) $154 \times 45 =$
 - c) $256 \times 38 =$

- 10) Andika mu mahembe ugabanye
- a) $7\ 896 : 4 =$ b) $8\ 469 : 9 =$ c) $9\ 891 : 7 =$
- 11) Uzuza n'imibare ibura
- a) $\bullet + 5\ 678 = 9\ 876$
 b) $8 \times \bullet = 6\ 312$
 c) $8\ 567 - \bullet = 2\ 789$
 d) $9\ 785 : \bullet = 5$
 e) $4\ 567 + 3\ 578 = \bullet + 5\ 986$
 f) $6\ 754 - \bullet = 7\ 523 - 5\ 398$
 g) $504 \times 8 = 9 \times \bullet$
 h) $\bullet : 5 = 7\ 000 : 8$
- 12) Shaka intera idahinduka yakoreshejwe muri uru rukurikirane rw'imibare
- a) 987, 1 092, 1 197, 1 302
 b) 875, 780, 685, 590
- 13) Uzuza uru rukurikirane rw'imibare n'imibare ibura
- a) 1 543, 1 474, 1 405, 1 336, ___, ___, ___
 b) 2 675, 2 500, 2 325, 2 150, ___, ___, ___
- 14) Uzuza iyi mbonerahamwe

\downarrow	0	1	2	3	4	5	6	7	8	9	10
$\times 7$											
\downarrow	0	1	2	3	4	5	6	7	8	9	10
$\times 8$											
\downarrow	0	1	2	3	4	5	6	7	8	9	10
$\times 9$											

- 15) Amahurizo
- a) Gabanya ku buryo bungana inzitiramubu 9 875 Imirenge 5. Umurenge uzahabwa inzitiramibu zingahe?
- b) Akagari ka Bibare gatuwe n'abagabo 1 368, abagore 1 579 n'abana 6 487. Ubwo ako kagari gatuwe n'abantu bangahe?

- c) Umurenge wacu wateye ingemwe z'inturusu
 8 764. Shaka umubare w' ingemwe zitameze niba
 7 985 ari zo zameze gusa.
- d) Muri sitade ntoya harimo intebe 1 009 zicarwaho
 n'abantu 9 imwimwe. Shaka umubare w'abantu
 bakwirwa muri iyo sitade.
- B) Ingero n'amafaranga y'u Rwanda
- 1) Ni uruhe rugero fatizo rw'ingero:
 - a) Z'uburebure c) Z'ibitembabuzi
 - b) Z'uburemere
 - 2) Hindura mu rugero wabajijwe
 - a) kg 5 g 80 = dag __
 - b) ℈ 8 dl 30 = dl __
 - c) m 5 cm 9 = mm __
 - 3) Koresha imbonerahamwe yo guhindura ingero usubize
 - a) dl 225 × 8 = l __
 - b) km 8 dam 50 × 6 = hm __
 - c) dag 578 × 5 = hg __
 - d) dl 7 200 : 9 = l __
 - e) km 8 m 4 : 6 = m __
 - f) kg 7 dag 7 : 7 = g __
 - g) dl 80 + ml 120 = l __
 - h) hm 75 + dam 2 250 = km __
 - i) hg 59 g 8 + dag 286 = g __
 - j) hm 9 m 8 - dam 49 m 9 = m __
 - k) dl 68 - ml 3 800 = l __
 - l) kg 6 dag 8 - g 5 678 = g __
 - 4) Subiza
 - a) Inoti 9 za F 1 000 = F 2 000 + F __ + F __
 - b) Ufashe inoti y'u Rwanda nini, ukongeraho intoya,
 ukongeraho ibiceri bibiri binini wagira F angahe?
 - c) Bagutumye kg 1 y'isukari ya F 1 200, umugati
 wa F 900, umunyu wa F 400, isabune za F 950,

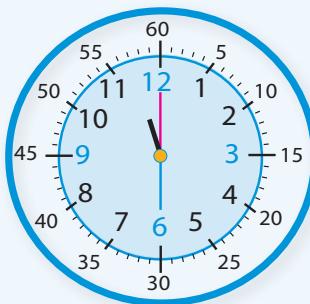
Kg 1 y'umuceri ya F 800 n'ifu y'igikoma ya F 1 500. Wagarura amafaranga angahe niba baguhaye inoti 2 za F 5 000?

5) Ni gihe ki?

a)



b)



6) Hindura izi ngero z'igihe:

- a) Imyaka 4 = Amezi ____
- b) Ibyumweru 8 = Iminsi ____
- c) Iminsi 30 = Amasaha ____
- d) Iminsi 35 = Ibyumweru ____

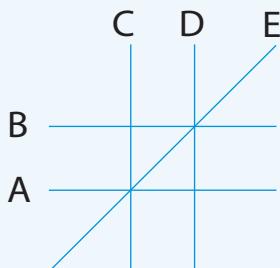
7) Sobanura itandukaniro riri hagati y'umwaka ugira iminsi 365 n'ugira iminsi 366.

- 8) Kagabo yatunze kg 2 700 z'ibirayi ku ngorofani abivana mu rugo abijyana ku isoko. Niba yarabitunze inshuro 9 ubwo buri nshuro yatwaraga kg zingahe?
- 9) Mahoro afite utujerikani 8 tujyamo ₩ 5 kamwekamwe. Ubwo yose hamwe afite amazi angana iki?
- 10) Imyaka ikurikira izaba ifite iminsi ingahe?

- a) 2 018 b) 2 019 c) 2 020 d) 2 024

C. Amashushongero

1) Itegerezze uvuge amazina y'imirongo iri ku ishusho:



- | | |
|----------------|----------------|
| a) A B ni ____ | e) B E ni ____ |
| b) C B ni ____ | f) A D ni ____ |
| c) D E ni ____ | g) B D ni ____ |
| d) A E ni ____ | h) C D ni ____ |

2) Uzuza izi mbonerahamwe

A) Kare

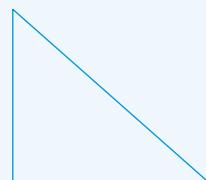
Uruhande	Umuzenguruko
cm 45	
	cm 240
cm 105	
	cm 840
cm 78	
	cm 960
cm 154	

B) Urukiramende

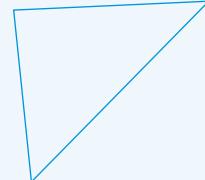
Uburebure	Ubugari	Umuzenguruko
cm 75	cm 54	
cm 23	cm 17	
cm 56	cm 43	
cm 87	cm 67	
cm 93	cm 79	
cm 36	cm 25	
cm 69	cm 47	

3) Vuga amazina y'izi mpandeshatu

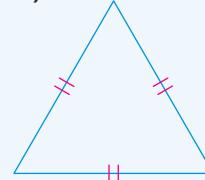
a)



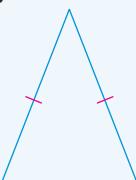
b)



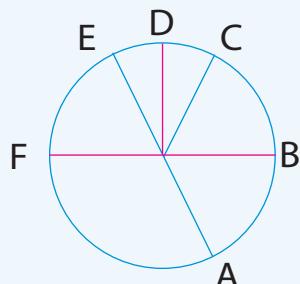
c)



d)



4) Vuga amazina yimirongo iri kuri uru ruziga



a) AE ni ____

b) OB ni ____

c) FD ni ____

d) OC ni ____

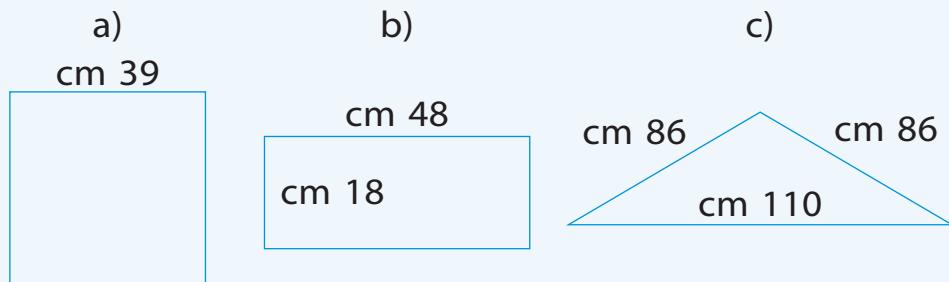
e) OD ni ____

f) OA ni ____

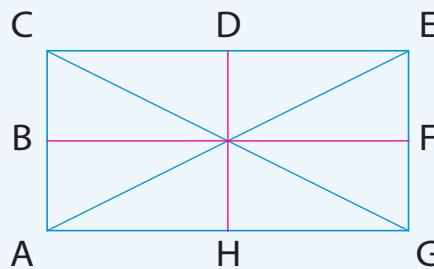
g) OF ni ____

h) OE ni ____

- 5) Shaka umuzenguruko wa kare ifite cm 45 z'uruhande
- 6) Shaka umuzenguruko w'umurima ufile cm 89 z'ubugari na cm 121 z'uburebure.
- 7) Shaka umuzenguruko wa mpandeshatu ndinganire ifite cm 18 z'uruhande
- 8) Shaka umuzenguruko w'aya mashushongero



- 9) Itegerezze uru rukiramende usubize



Vuga amazina y'imirongo ikurikira:

- a) $AC =$ c) $AG =$ e) $AE =$ g) $GE =$
 b) $CG =$ d) $BF =$ f) $HD =$ h) $CE =$
- 10) Shushanya ikinyatuzu k'imbariro 8 n'inkingi 8:
 a) Shyiramo utudomo A (3, 6) B (6, 7) C (3, 3) D (7, 3)
 b) Vuga izina ry'ishusho ubonye
 c) Pima imfuruka zayo
- 11) Shushanya imfuruka ya dogere 60 n'iya dogere 135
- 12) Ifashishe ibishushanyo bikoreshwa mu mibare ugaragaze
 a) Imipira 6 yo gukina d) Inkweto 9
 b) Imodoka 7 e) Imipira yo kwambara 10
 c) Amacunga

16. Inyunguramagambo yo muri iki gitabo k'lmibare

Agacamurongo: Irati ikoze mu giti, mu cyuma cyangwa
muri pulasitiki yifashishwa mu guca imirongo no
gushushanya amashushongero.

Agacaruziga: Igikoresho kifashishwa mu gushushanya
uruziga

Akarambararo: Umurongo ugororotse uva mu izingiro
ukagera ku muzenguruko w'uruziga.

Biruta: Ikimenyetso gikoreshwa mu igereranya iyo
umubare ubanza ariwo munini (>)

Birutwa: Ikimenyetso gikoreshwa mu igereranya iyo
umubare ubanza ariwo muto (<)

Dekametero: Urugero rw'uburebure / igikoresho
kifashishwa mu gupima uburebure bw'umuhandा,
ikibanza, umurima, ...

Gusesengura imibare: Kuvuga umwanya n'agaciyo bya
buri mubarwa ugize umubare

Gutondeka imibare: Gukurikiranya imibare uhoreye ku
muto ujya ku munini cyangwa uhoreye ku munini ujya
ku muto

Ibinyabumwe: Umwanya w'umubarwa utangira iburyo mu
mibarwa igize umubare

Ibinyacumi: Umwanya w'umubarwa wa kabiri uhoreye
isburyo mu mibarwa igize umubare

Ibinyagihumbi: Umwanya w'umubarwa wa kane uhoreye
isburyo mu mibarwa igize umubare

Ibinyajana: Umwanya w'umubarwa wa gatatu uhoreye
isburyo mu mibarwa igize umubare

Ibitembabuzi: Ibantu byose bisukika nk'amazi.

Icyumweru: Igihe k'iminsi irindwi

Ngabanya ridasagura: Uburyo bwo kugabanya bushyitse
ntihagire igisigara

Igiciro: Amafaranga umucuruza yifuza kugurisha
igicuruzwa ke.

Igikuba: Umubare ukubishwa undi, mu ikuba ry'imibare

Igikubo: Igisubizo babona bakubye imibare

Igikubwa: Umubare ukubwa n'undi ngo haboneke igikubo

Igiteranyo: Igisubizo babona mu iteranya ry'imibare

Ikibara: Umubare uri hejuru y'umurongo w'umugabane

Ikigabanwa: Umubare ugabanywa

Ikigabanya: Umubare bagabanyisha

Ikigabanyo: Igisubizo babona mu igabanya ry'imibare

Ikinyatuzu: Igishushanyo kirimo utuzu dukozwe
n'imirongo ihagaze bita inkingi n'indi itambitse bita
imbariro

Ikinyuranyo: Igisubizo babona mu ikuramo ry'imibare

Ikita: Umubare uri munsi y'umurongo w'umugabane

Ikizima: Umubare ushyitse cyangwa ikita kingana
n'ikibara

Imbariro: Imirongoigororotse ihagaze yifashishwa mu
kubaka ikinyatuzu

Imbonerahamwe y'ibara: Imbonerahamwe yifashishwa
mu gusesengura imibare

Imfuruka: Inguni ikorwa n'imirongo ibiri inyuranamo

Imfuruka ifunganye: Imfuruka iyo ari yo yose ipima
dogere ziri munsi ya 90

Imfurukaigororotse: Imfuruka iyo ari yo yose ipima
dogere 90

Imfurukayagutse: Imfuruka iyo ari yo yose ipima dogere
ziri hagati ya 90 na dogere 180

Imibarwa: Imibare igize umubare

Imigabane: Imibare igaragaza ibice byagabanijwe mu
kizima igira ikibara, ikita n'umurongo w'umugabane
utandukanya ikibara n'ikita

Imirongo: Urukurikirane rw'utudomo tugiye umujyo umwe

Imirongo inyuranamo: Imirongo ifite ibyerekezo
binyuranye kandi ihurira mu kadomo kamwe igakorana
imfuruka

Indangaminsi: Igikoresho kerekana iminsi, amatariki, ibyumweru, n'amezi bigize umwaka

Inganyagaciro: Imibare inganya agaciro bigaragajwe n'ikimenyetso cya bihwanye, kiri hagati yayo.

Ingeramfuruka: Igikoresho kifashishwa mu gupima imfuruka

Ingero z'igihe: Ingero zifashishwa mu kwerekana igihe

Ingero z'uburebure: Ingero zifashishwa mu gupima indeshyo y'ahantu, abantu cyangwa ibintu.

Ingero z'uburemere: Ingero zifashishwa mu gupima ingano y'ibintu

Inkingi: Imirongo igororotse ihagaze yifashishwa mu kubaka ikinyatuzu

Intera idahinduka: Intera ikoreshwa mu rukurikirane rw'ibara rukozwe ku buryo budahinduka

Isaha: Igihe k'iminota mirongo itandatu.

Iteranya ribitsa: Iteranya rigira ibiteranyo by'imibarwa bigera cyangwa birenga 10

Iteranya ritabitsa: Iteranya rigira ibiteranyo by'imibarwa iri munsi ya 10

Izingiro: Akadomo ko mu ruziga hagati kifashishwa mu gushushanya uruziga

Kare: Ikinyampande gifite impande enye zingana n'mfuruka enye zigororotse.

Kugereranya imibare: Kureba umunini n'umuto

Kuvunja: Guhinduza amafaranga mu yandi bihwanyije agaciro

Kuzigama: Kwiteganyiriza

Metero buhine: Metero ikunjwa, ihinahinwa

Metero bushumi: Metero iteye nk'agashumi

Mpandeshatu: Ishushongero rifite impande eshatu

Mpandeshatu ibonetse yose: Ishushongero rifite impande eshatu zose zitangana n'mfuruka 3 zitangana

Mpandeshatu ndinganire: Ishushongero rifite impande eshatu zingana

Mpandeshatu nyampanga: Ishushongero rifite impande eshatu n'imfuruka eshatu ariko ebyiri muri zo zingana

Mpandeshatu nyanguni: Ishushongero rifite impande eshatu ariko ebyiri muri zo zikora imfuruka igororotse

Nsuzuma ngusuzume: Ubwoko bw'isuzuma rikorwa n'abanyeshuri babiribabiri

Reka nisuzume: Ubwoko bw'isuzuma rikorwa n'umunyeshuri ku giti ke

Ukwezi: Igihe kingana n'ibyumweru 4 bigizwe n'iminsi 30, cyangwa 31, 28 cyangwa 29

Umunota: Igihe kingana n'amasegonda 60

Umunzani: Igikoresho cyo gupima ibiro by'ikintu cyangwa by'abantu

Umurambararo: Umurongo ugororotse uva ku muzenguruko w'uruziga ukanyura mu izingiro ry'uruziga ukongera ukagera ku muzenguruko

Umurongo ugororotse: Umurongo ugiye umujyo umwe

Umurongo w'umugabane: Umurongo utandukanya ikibara n'ikita

Umuzenguruko: Uburebure bungana n'intera izengurutse ishusho runaka cyangwa ahantu runaka

Umwaka udasanzwe: Umwaka ugira iminsi 366

Umwaka usanzwe: Umwaka ugira iminsi 365

Urukiramende: Ikinyampande gifite impande 4, ebyirebyiri ziteganye zingana n'imfuruka 4 zigororotse.

Urukurikirane rw'imibare: Imibare itondetse uhoreye ku muto, ujya ku munini cyangwa uhoreye ku munini ujya ku muto ariko hagati yayo harimo intera idahinduka (umubare ugenda wiyyongerwaho cyangwa ukurwamo)

Uruziga: Ishushongero rigizwe n'umurongo ufunze uri ku nteria ingana uturutse mu izingiro.