

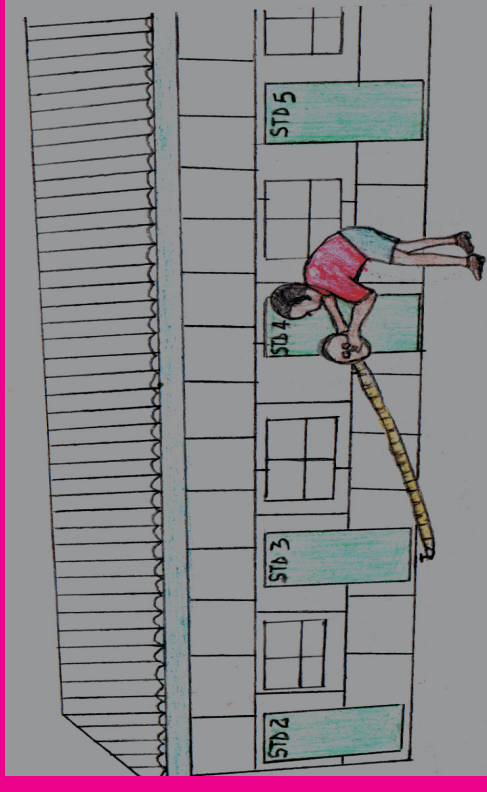
Mathaabu
Kîraci kîa Bithatû
Îbuku rîa Mwarimû



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MATHAABU KÎRACI KÎA BITHATÛ

Îbuku rîa Mwarimû



MATHAABU

ÎBUKU RÎA MWARIMÛ RÎA

KÎRACI KIA BITHATÛ

Standard

3

Teacher's Guide

Mathematics

in Tharaka Language

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PREFACE

This Standard Three Mathematics Teacher's Guide is written in accordance with the Standard Three Syllabus by the Kenya Institute of Education (KIE). The book is divided into 10 units. Each unit deals with a major topic. These 10 main topics that the book covers are: ***Whole Numbers, Fractions, Operations, Subtraction and Addition of Fractions, Measurements, Weight, Capacity, Money, Time and Geometry***. The topics are divided into sub-topics and the various topics are further sub-divided into lessons.

This book was written to help teachers in Tharaka lower primary schools in teaching Mathematics using Kĩitharaka as a medium of instruction. This is in line with the requirement of the Ministry of Education that pupils in lower primary schools learn in the language of the catchment area.

This book and others in this series are culturally relevant to Tharaka children. They are not only written in Kĩitharaka but they use examples familiar to Tharaka children.

This is a teacher's guide that has instructions to the teacher on how to disseminate the contents of the pupil's book to the learners.

I would like to appreciate and acknowledge the contribution by various partners in developing this book and others in the Kĩitharaka series. Among these are the Tharaka MTE Writers Panel, BTL Tharaka staff, Tharaka South and Tharaka North District Education Officials, our funding partners, Bible Translation & Literacy (E.A.) and our other various partners.

I most sincerely thank all those who took part and gave all manner of support in the development of this book.

God bless you all.

Onesmus Kamwara

BTL Tharaka Project Leader

KÎMENYITHIA

Îbuku rîrî rîa mwarimû rîa Mathaabu rîa Kîraci Kîa Bithatû rîandîkîitwe rîkîthiingatagîra sîrabasi ya Kîraci kîa Bithatû ya ‘Kenya Institute of Education’ (KIE). Rîgaûkanîitue icuncî îkûmi. Na wa kîra gîcuncî kîrî na kîthoomo gîakîo. Ithoomo bira birî îbukuuni rîrî i: ***Naamba imbûyûru, Icuncî, Kûgaîra kûriinganîra kûrutithania na kuugithia maîta, Kûrutithania na kûriinganîra Icuncî, Kûthima, Ûrito, Mûthûûmba, Mbia, Thaa na Mîcooro.*** Ithoomo bibi ibigaûkanîitue biauma reeconi inyiingî.

Îbuku rîrî rîandîkirwe rîa gûteetheeria aarimû ba iraci bia mwambîirio bia cukuru cia Tharaka kûrutana bagîtûmagîra rwaria rwa Kîitharaka. Ûgu i kûriingana na watho bwa rwong’i rwa Kîthoomo atî aana ba iraci bia mwambîirio babatîirue barutanwa na rwaria rûra rwaragua n’antû ba bantû agu cukuru îrî.

Îbuku rîrî na mara mangî marî mûbangooni ûyû ma Kîitharaka maandîkîitwe bûra mwana wa Tharaka aûmba kûmeerewa bwega mûno. Maandîkîitwe na rwaria rwa Kîitharaka na magîtûmagîra ngerekano ira aana ba Tharaka bamenyanîrîtie nacio.

Rîrî n’îbuku rîa mwarimû rîra rîrî na mataaro ma kwonia mwarimû bûra aûmba kûrutana mantû mara marî îbukuuni rîrî .

Ingûcookia nkaatho kîrî antû bara bateetheereetie kwandîka îbuku rîrî na Mabuku mara mangî ma mûbango ûyû wa Kîitharaka. Nabo i bo: Gîkundi kîa aandîki ba Kîitharaka, aruti ngûgî ba BTL Tharaka, anene ba kîthoomo ndeni ya Ndicitirîti cia Tharaka ya Naiti na ya Neegûrû, antû bara bateethagîria na mbia, BTL na bangî baingî. Ingûcookeria antû bonthe bara bateetheereetie na njîra mwanya mwanya, wandîkî bwa îbuku rîrî nkatho inyiingî mûno.

Ngai abûthaarime bwinthe,

Onesmus Kamwara
BTL Tharaka Project Leader

FOREWORD

For the last ten years Bible Translation and Literacy (BTL) has partnered with the Government of Kenya in implementing Mother Tongue Education (MTE) in schools among the Tharaka community.

This standard 3 Mathematics teacher's book in Kĩtharaka was developed by teachers, education officials from the Tharaka programme area and BTL staff and consultants. Earlier, before the production of the books in this series, BTL worked with the community whose language was previously unwritten to develop and produce a functional and acceptable orthography (writing system).

It is my hope that this book will lay a strong foundation to enable teachers to teach numbering and numeracy skills. It is my desire to see that these books will become a stepping stone to the greater success and performance in the children's future learning process. The use of Mother Tongue in teaching and learning in schools has proved to enable learners to easily take their first steps in learning how to read, write and do basic numbering and arithmetic.

I believe that good quality learning is not only aimed at enabling the learners to be competent, productive and successful in their exams; but also at encouraging diversity and developing a generation of citizens who are proud of and well rooted in their cultural and traditional heritage.

I recognize and applaud the healthy partnerships that BTL has had with the Ministry of Education as represented by the Education Officials and the teachers. On behalf of BTL, I take this opportunity to thank all our partners for having tirelessly and selflessly contributed to the development, editing and production of this student book. I hope this contribution will go a long way to improve the quality of life through cultural and socio-economic development.

Rev. Peter Munguti
General Secretary,
Bible Translation and Literacy (BTL)
February 2012

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GÎCUNCÎ KÎA MBERE: Naamba

Naamba i mbûyûru

Mworooto:

Mûthiani wa gîcuncî gîkî, mûrutwa akaûmba:

1. gûtara, kûthooma na kwandîka naamba mwanka **9999**
2. kûthooma na kwandîka naamba na mîgambo mwanka **999**
3. kûmenya na kwathûrana kaanya kara naamba îrûgamirîite mwanka ngiri îmwewe
4. kûbangania wingî kuuma gîntû kîa mbere
5. mwanka gîa îkûmi.

A. Kûbaangania na kûyûrîria

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba:

1. gûtara, kûthooma na kûbaangania naamba.

Îgiita: Reconi ithanthatû (6)

Mariîtwa ma gîtûmi:

kûbangania.

Into bia kûthooma / kûthoomithia:

kîbaû, cati, îbuku rîa mûrutwa katatati ka 1

Ngûgî cia kûthooma / kûthoomithia

1. Ririkania arutwa gûtara mwanka 999
2. Tongoria arutwa gûtara mwanka 9999
3. Andîka naamba kîbaûni itarî mbaange bwega
4. Tongoria arutwa kûbaangania naamba inu bwega.

Wîra: Îbuku rîa mûrutwa karataati ka 1 - 2

Macookio ma biûria: Karataati ka 1-2

1. a) 2, 3, 5, 6, 8, 9, 12, 17, 20
b) 11, 13, 17, 22, 23, 29, 35, 40, 48
c) 1, 4, 7, 9, 10, 13, 18, 22, 25.
d) 10, 20, 30, 40, 50, 60, 70, 80, 90.
2. a) 330, 280, 150, 130, 120
b) 166, 132, 65, 45, 33
c) 91, 77, 55 38, 23
3. a) 30, 40, 50, 60, 70, 80, 90
b) 180, 200, 220, 240
c) 910, 920, 930, 950, 960
d) 903, 904, 905, 906, 908
4. 442, 300, 220, 187, 120, 110
5. 228, 380, 456, 570, 620, 870, 930, 999
6. 992, 993, 994, 995, 996, 997, 998, 999

B. Kwandîka naamba na mîgaambo

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kwandîka naamba na mîgaambo mwanka 999.

Îgiita: Reconi mûgwanja (7)

Mariîtwa ma gîtûmi:

mîgaambo, mîroongo, magana

Into bia kûthooma / kûthoomithia:

Cati, kîbaû, îbuku rîa mûrutwa

Ngûgî cia kûthooma / kûthoomithia:

Tongoria arutwa kwandîka naamba i nkai na mariîtwa.

Wîra: îbuku rîa mûrutwa karataati ka 2 - 5

Macookio ma biûra:

1. a) mîroongo îthatû na ithanthatû
b) mîroongo mûgwanja na inyaanya
c) mîroongo îthanthatû na ithanthatû
d) mîroongo keenda na keenda
e) mîroongo îtaano na ithatû
f) mîroongo îna na inya
g) mîroongo înaana na inyaanya
h) îkûmi na ithatû
i) mîroongo îîrî
j) mîroongo keenda na îtaano
2. a) îgana rîa mûroongo îthanthatû na mûgwanja
b) magana maîrî ma mîroongo îîrî na inyaanya
c) îgana rîmwe rîa îkûmi na îmwe
d) magana mathatû ma mîroongo înaana na ithatû
e) magana mathanthatû na mîroongo mûgwanja na inya.
f) magana mana
g) magana keenda ma ithanthatû
h) magana mûgwanja ma mîroongo îthanthatû
i) magana mataano ma mîroongo keenda na inya
j) magana manaana ma mîroongo keenda
1. a) 2000
b) ngiri itaano
c) 7000
d) ngiri inyaanya
e) 3000
f) ngiri ithanthatû
g) 9000
h) ngiri inya

3. a) îgana rîmwe rîa mîroongo îthatû
 b) magana mathatû ma mîroongo yîîrî
 c) îgana rîmwe rîa mîroongo înaana
 d) magana mathatû ma mîroongo îthatû
 e) 740
 f) 570
 g) magana mana ma mîroongo îtaano
 h) 800
 i) 600
 j) magana maîrî ma mîroongo înaana na ithatû

4. 300 — magana mana
 700 — magana maîrî
 100 — magana mathanthatû
 500 — magana mathatû
 900 — magana mûgwanja
 400 — magana mataano
 800 — magana keenda
 600 — îgana rîmwe
 200 — magana manaana

5. a) 17
 b) 28
 c) 13
 d) 33
 e) 96
 f) 45
 g) 59

6. a) 888
 b) 179
 c) 980
 d) 243
 e) 340
 f) 706
 g) 444

- h) 111
 i) 313

C. Gûtara

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba gûtara mwanka 9999.

Îgiita: Reconi ithanthatû (6)

Mariîtwâ ma gîtûmi:

îkûmi, îgana, ngiri

Into bia kûthooma / kûthoomithia:

cati, kîbaaû

Ngûgî cia kûthooma / kûthoomithia:

Tongoria arutwa kwandîka na gûtara naamba mwanka 9999

Wîra: Îbuku rîa mûrutwa karataati ka 3

Macookio ma biûria: karataati ka 6 - 7

- | | |
|------------|------------|
| 7. a) 2000 | 8. a) 3999 |
| b) 2001 | b) 3499 |
| c) 5041 | c) 6898 |
| d) 9910 | d) 4424 |
| e) 5071 | e) 6969 |

9. a) 3300, 3400, 3500
b) 4150, 4200, 4250
c) 8500, 8600, 8700
d) 2300, 2350, 2400
e) 9970, 9980, 9990, 10,000

D. Kaanya kara naamba îrûgamîrîite**Mworooto:**

Mûthiani wa kîthoomo gîki, mûrutwa akaumba kûthooma na kwandîka naamba kanyaani kara îrûgamîrîite.

Îgiita: Reconi itaano (5)

Mariîtwâ ma gîtûmi:

kaanya, magiri, magana, makûmi, na matigari

Into bia kûthoma/kûthoomithia:

Cati

Ngûgî cia kûthooma / kûthoomithia:

1. Coora mûraba wa kûrutana magiri, magana, makûmi na matigari.
2. Onia arutwa kûyûrîria kaanya ka naamba kuuma njara ya ûrîo gûcooka njara ya ûmotho bakîambagîria na matigari.

Wîra: Îbuku ria mûrutwa karataati ka 8-9

Macookio:

- | | | | | | | | | |
|-------|----|----|----|---|-------|----|----|---|
| 1. a) | 5, | 3, | 2, | 4 | 2. a) | 4, | 7, | 0 |
| b) | 3, | 4, | 6, | 2 | b) | | 4, | 8 |
| c) | | 3, | 2, | 0 | c) | 9, | 0, | 2 |
| d) | 5, | 0, | 0, | 2 | d) | 2, | 8, | 0 |
| e) | 1, | 9, | 0, | 3 | e) | 5, | 1, | 6 |
-
3. a) 748
b) 296
c) 362
d) 108
e) 927
f) 892

E. I naamba ya igana?**Mworooto:**

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûthooma na kwandîka naamba ara îrî.

Îgiita: Reconi ithatû (3)

Mariîtwa ma gîtûmi:

I naamba ya igana?

Into bia kûthooma / kûthoomithia:

Cati

Ngûgî cia kûthooma / kûthoomithia:

ûmîra cati îrî na mbica ithingateene kûrutana ara naamba îrî ta ûgû:
ya mbere, ya cîîrî kûthi na mbere

Wîra: Îbuku rîa mûratwa karataati ka 10

Macookio ma biûria:

1. a) cîîrî
- b) ithatû
- c) itaano
- d) mbere
- e) inya

F. Mîeri ya mwanka**Mworooto:**

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûthooma na
kwandîka mîeri ya mwanka îthingateene.

Îgiita: Reconi ithatû (3)

Mariîtwa ma gîtûmi:

mîeri, mwanka.

Into bia kûthooma / kûthoomithia:

Cati

Ngûgî cia kûthooma / kûthoomithia:

1. Ûria arutwa bagwete mîeri ya mwanka îra baiyî
2. Thoomithia mîeri ya mwanka îrî îkûmi na yîîrî.

Wîra: Îbuku rîa mûrutwa karataati ka 11

Macookio ma biûria:

Raithîra arutwa kana i bandîkîite mîeri yonthe ya mwanka î
thingateene bwega.

G. Ntugû cia kiumia

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûthooma na kwandîka ntugû cia kîumia i thingateene bwega.

Îgiita: Reconi ithatû (3)

Mariîtwa ma gîtûmi:

kiumia, ntugû.

Into bia kûthooma / kûthoomithia:

Cati

Ngûgî cia kûthooma / kûthoomithia:

Thoomithia ntugû cia kiumia mûgwanja ithingateene.

Wîra: Îbuku rîa mûrutwa karataati ka 12

Macookio:

Raithîra arutwa baandîke ntugû cia kiumia i thingateene bwega mabukuuni mao ma kwandîkîra.

H. Wîra: Ara naamba îrî. Îbuku rîa mûrutwa karataati ka 12

Macookio:

- a) kabûri
- b) mûgwanja
- c) kînoti
- d) inyaanya/mwico/arigîîtie
- e) bana

GÎCUNCÎ KÎA BIÎRÎ: Tûcuncî/Kûgaania

Mworooto:

Mûthiani wa gîcuncî gîkî, mûrutwa akaûmba:

1. kwathûrana, kûthooma, na kwandîka tûcuncî
ta nucu, robo, na gacuncî kamwe ka inyaanya.

A. Nucu ya gîntû

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kwathûrana
kûthooma na kwandîka nucu ya gîntû.

Îgiita: Reconi inya (4)

Mariîtwa ma gîtûmi:

nucu ya gîntû, kûgaania, tûcuncî, gîkundi.

Into bia kûthooma / kûthoomithia:

Cati, tûmîtî, coka, îcunkwa

Ngûgî cia kûthooma / kûthoomithia:

1. Tongoria arutwa kûgaania gîntû ta tûmîtî, îcunkwa, coka, na
kîûgwa maita maîrî
2. Arutwa baandîke nucu.

Wîra: Îbuku rîa mûrutwa karataati ka 15

Macookio ma biûria:

6	4	11
8	12	7
10	5	15

Macookio:

5, 9
8, 7

B. Túcuncî twa inya

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûthooma na kwandîka gacuncî ka inya.

Îgiita: Reconi inya (4)

Mariîtwâ ma gîtûmi: kûgemia, tûthandûkû.

Into bia kûthooma / kûthoomithia: cati, îcunkwa, n.b.b.

Ngûgî cia kûthooma / kûthoomithia:

1. Tongoria arutwa kûgaania gîntû maita mana
2. Onania na mbica ingemie gîcuncî gîkî kîa inya.

Wîra: Îra arutwa bacoore, bagemie na baandîke $\frac{1}{4}$.

C. Túcuncî twa inyaanya

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kwathûrana, kûthooma na kwandîka $\frac{1}{8}$.

Îgiita: Reconi ithatû (3)

Mariîtwâ ma gîtûmi:

amwe gwa tûnaana

Into bia kûthooma / kûthoomithia:

ûmîtî, tûrataati, macuunkwa, ikwayî, ndigû, n.b.b.

Ngûgî cia kûthooma / kûthoomithia:

1. Tongoreeria arutwa kûgaania gîntû kîûyûrû túcuncî tûnaana tûgeneene.
2. Tûmîra mbica mwanya mwanya i ngemie kûthoomithia $\frac{1}{8}$

Wîra: Îbuku rîa mûrutwa karataati ka 15 - 19

Macookio ma biûria: karataati ka 19

$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{4}$
$\frac{1}{8}$	$\frac{1}{6}$		$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{8}$
$\frac{1}{4}$	$\frac{1}{2}$	$\frac{1}{6}$			

GÎCUNCÎ KÎA BITHATÛ: Mbano

Kûringanîra, kûrutithania, kûgaîra na kuugithia maita

Mworooto:

Mûthiani wa gîcuncî gîkî, mûrutwa akaûmba

1. kûringanîra naamba ithatû kîrî naamba ithatû atagûkamata na agîkamataga
2. kûringanîra naamba inya kîrî naamba inya agîkamataga na atagûkamata
3. kûrutithania naamba inya kîrî naamba inya agîkamataga na atagûkamata
4. kuugithania maita naamba îmwê na îra yîingî cîîndamîite na ikeranîitie
5. kûgaîra naamba iganeene na nîra ya kûrutithaniakûgaîra naamba cîîrî na îmwê îtagûkûrûka 9 agîtûmagîra
6. kuugithania maita naamba îmwê kwa îmwê.
7. kwonanaia ngwatanîro ya kuugithania maita na kûgaîra.
8. kûrutha mataane magîtûmagîra mathaabu ma kûringanîra, kuugithania maita na kûrutithania naamba.

A. Gûtaranîria

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûringanîra naamba ithatû kîrî naamba ithatû atagûkamata na agîkamataga.

Îgiita: Reconi itaano (5)

Mariîtwâ ma gîtûmî: kûringanîra, gûkamata.

Into bia kûthooma / kûthoomithia: cati, kîbaû

Ngûgî cia kûthooma / kûthoomithia:

1. Tongoria arutwa kûbaanga naamba i thimeene kûringana na kaanya kara naamba îrûgamîrîite
2. Thomithia kûringanîra wambîrîitie na matigari. Ririkana gûkamata.

Wira: Îbuku rîa mûrutwa karataati ka 22-26

Macookio ma biûria: Karataati ka 20-21

1. a) 101, 115, 77, 100, 59
b) 95, 82, 126, 94, 90
c) 111, 115, 66, 104, 111
d) 113, 115
71, 151
104, 185
96, 94
128, 82

2. a) 86, 78, 54
52, 37
b) 87, 31, 67
c) 69, 86, 129, 69, 77
d) 148, 138, 151, 160, 171
e) 198, 150, 117, 105, 119

3. a) Macookio ma biûria: Karataati ka 22

1. 113
2. 129
3. 122
4. 216

4. Macookio ma biûria: Karataati ka 23

- 1) 66 2) 91 3) 83 4) 101
5) 659 6) 640 7) 1040 8) 894
9) 954 10) 590 11) 694 12) 891
13) 593 14) 659
15) 952 16) 589

B. Kûrutithania

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûrutithania naamba cîrî kuuma kûrî naamba ithatû akîrombaga na atakûroomba.

Îgiita: Reconi inya (4)

Mariîtwa ma gîtûmi: kûrutithania, kûromba kamwe

Into bia kûthooma / kûthoomithia: Cati

Ngûgî cia kûthooma / kûthoomithia:

kûrutithania naamba kuuma bwa ûrîo.

Wîra: Îbuku rîa mûrutwa karataati ka 24-26

Macookio ma biûria: Karataati ka 24

1. 92	2. 32	3. 86	4. 33
5. 304	6. 260	7. 211	8. 674
9. 497	10. 740	11. 437	12. 815
13. 741	14. 55	15. 700	16. 333

Macookio ma biûria: Karataati ka 25

1. 49	28	41	26
2. 29	62	48	49
3. 30	50	75	25
4. 5	4		
0	15		

D. Kûringanîra naamba ciîrî irî naamba inya ûgîkamataga kana ûtagûkamata na ûtagûkûrûkia 9999

Macookio ma biûria: karataati ka 26-28

- (i) 1. 3367 2. 6985 3. 8938 4. 9104
5. 7777 6. 9688 7. 9094 8. 8995
9. 6447 10. 5454

- (ii) 1. 5220 2. 9924 3. 8245 4. 4551
5. 8211 6. 5331 7. 3854 8. 8215
9. 8104 10. 9021 11. 8090 12. 3420
13. 5111 14. 3974 15. Mbûri 974
16. ciringi 8,222 17. matubaarî 3,390
18. ciringi 3,937

E. Kûrutithania naamba inya ûkîrombaga na ûtakûromba

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûrutithania naamba inya kuuma kûrî naamba inya akiroombaga na atakûromba.

Îgiita: Reconi ithatû (3)

Mariîtwa ma gîtûmi: kûrutithania

Into bia kûthooma / kûthoomithia: cati

Ngûgî cia kûthooma / kûthoomithia

Tongoria arutwa kûririkana kûroomba kuuma kûrî makûmi kûthi matigari.

Wîra: Îbuku rîa mûrutwa karataati ka 29-30

Macookio ma biûria:

1. 5 2. 21 3. 63 4. 48 5. 8
6. 238 7. 1017 8. 3136 9. 5690 10. 3822
11. 5415 12. 7119 13. 9000
14. 2137 15. 605 16. 1229

F. Kûringa maita naamba ciîrî îmwê îmwê

Macookio ma biûria: Karataati ka 30

$$4 \times 4 = 16 \quad 3 \times 6 = 15 \quad 4 \times 4 = 16$$

Macookio ma biûria: Karataati ka 31

1. 9 2. 12 3. 30 4. 10
5. 24 6. 18 7. 14 8. 27
9. 15 10. 16

Kûûyûrîria mûraba ûyû kûra gûtige

x	1	2	3	4	5	6
2	2	4	6	8	10	12
3	3	6	9	12	15	18
4	4	8	12	16	20	24
5	5	10	15	20	25	30

Macookio ma biûria: Karataati ka 32-33

$$4 \times 7 = 28 \quad 6 \times 6 = 36 \quad 4 \times 5 = 20$$

Macookio ma biûria: Karataati ka 33

24	27	35	40
18	28	9	24
15	40	36	36

Ûûrîria mûraba ûyû kûra gûtigîitwe.

Macookio ma biûria: Karataati ka 33

x	1	2	3	4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9
2	2	4	6	8	10	12	14	16	18
3	3	6	9	12	15	18	21	24	27
4	4	8	12	16	20	24	28	32	36
5	5	10	15	20	25	30	35	40	45
6	6	12	18	24	30	36	42	48	54

Macookio ma biûria: Karataati ka 34

a)

15	30	21
30	18	24
40	42	40
35	24	9
20	54	16

b)	42	10	30
	8	49	72
	48	56	40

c)	35	64	36
	45	42	72

Macookio ma biûria: Karataati ka 34-35

d) 1. $4 \times 5 = 20$ 2. $5 \times 6 = 30$
 3. $9 \times 4 = 36$ 4. $5 \times 6 = 30$

G. Ngwatanîro gatagatî ga kûringa maita na kûgaîra

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba gûtara mathaabu ma maita na kûgaîra.

Îgiita: Reconi ithatû (3)

Mariîtwa ma gîtûmi: maita, kûgaîra, ngwatanîro

Into bia kûthooma / kûthoomithia: cati, mûraba wa kuugithania maita

Ngûgî cia kûthooma / kûthoomithia: tûmîra mûraba ûmwe kûthoomithia maita na kûgaîra.

Wîra: îbuku rîa mûrutwa karataati ka 35-36

Macookio:

6	6
3	6
3	7
5	8
7	9
8	5

1	27	2	
4	9	4	
5	5	45	
42	7		
6			63

$$7 \times 4 = 28$$

$$9 \times 9 = 81$$

H. Macookio ma biûria: Karataati ka 37

- | | | |
|---------------------|---------------------|-------|
| 1. 3 | 2. 4 | 3. 2 |
| 4. 5 | 5. 10 | 6. 2 |
| 7. 3 | 8. 1 | 9. 3 |
| 10. 4 | 11. 2 | 12. 8 |
| 13. $6 \div 2 = 3$ | 14. $12 \div 3 = 4$ | |
| 15. $15 \div 3 = 5$ | | |

I. Macookio ma biûria: Karataati ka 38

- | | | |
|----------|------|------|
| 1. a) 12 | b) 2 | c) 6 |
| 2. a) 15 | b) 5 | c) 3 |
| 3. a) 14 | b) 2 | c) 7 |
| 4. a) 27 | b) 3 | c) 9 |
| 5. a) 32 | b) 4 | c) 8 |

- | | | | | | |
|-------|----|----|---|----|----|
| 6. a) | 40 | b) | 4 | c) | 10 |
| 7. a) | 10 | b) | 5 | c) | 10 |
| 8. a) | 6 | | | | |
| 9. | 9 | | | | |
| 10. | 7 | | | | |
| 11. | 9 | | | | |
| 12. | 8 | | | | |
| 13. | 7 | | | | |
| 14. | 9 | | | | |
| 15. | 10 | | | | |
| 16. | 9 | | | | |
| 17. | 7 | | | | |

J. Macookio ma biûria: Karataati ka 39

- | | | | |
|-----|-----------------|-----|-----------------|
| 1. | 4 | 2. | 5 |
| 3. | 2 | 4. | 5 |
| 5. | 7 | 6. | 8 |
| 7. | 7 | 8 | 5 |
| 9. | 4 | 10. | 9 |
| 11. | 16 | 12. | 4 |
| 13. | $32 \div 8 = 4$ | 14. | $40 \div 5 = 8$ |
| 15. | $24 \div 4 = 6$ | 16. | $30 \div 5 = 6$ |

K. Kûyûrîria mûraba

x	2	3	4	5	6	7	8	9
2	4	6	8	10	12	14	16	18
3	6	9	12	15	18	21	24	27
4	8	12	16	20	24	28	32	36
5	10	15	20	25	30	35	40	45
6	12	18	24	30	36	42	48	54
7	14	21	28	35	42	49	56	63
8	16	24	32	40	48	56	64	72
9	18	27	36	45	54	63	72	81

Macookio ma biûria: Karataati ka 40

Tûmîra mûraba kûgaîra mathaabu mama.

2. a) 5 b) 9 c) 9
3. a) 8 b) 8 c) 7
4. a) 8 b) 7 c) 9
5. a) 8 b) 7 c) 3
6. a) 3 b) 8 c) 6
7. a) 6 b) 9 c) 9
8. $36 \div 6 = 6$

Macookio ma biûria: Karataati ka 41

1. a) 5 b) 2 c) 5
2. a) 8 b) 8 c) 9
3. a) 6 b) 9 c) 3
4. a) 4 b) 9 c) 6
5. a) 9 b) 9 c) 8
6. a) $49 \div 7 = 7$ 7. $81 \div 9 = 9$

L. Mûbaangîre wa naamba ndeni ya gûtaranîria, kûruta, na kuugithania maita

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akûmba gûceria naamba îra îthingatîite îra yîingî ndeni ya gûtaranîria, kûruta na kûringithania maita.

Îgiita: Reconi ithatû (3)

Mariîtwa ma gûtûmi: gûtaranîria, kûruta, kuugithania maita

Into bia kûthooma / kûthoomithia: Cati

Ngûgî cia kûthooma / kûthoomithia:

1. Tongoria arutwa kûthooma mûraba na barûthe naamba i thingateene bakîthingatagîira kûringa maita, na gûtaranîria.

Wîra: Îbuku rîa mûrutwa karataati ka 43

Macookio:

- | | | | |
|-------|-------|-------|-------|
| a) 17 | b) 53 | c) 10 | d) 50 |
| e) 21 | f) 12 | | |

GÎCUNCÎ KÎA BINA: Kûringanîra na kûrutithania tûcuncî

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûringanîra na kûruta tûcuncî tûtû:

$1/2$, $1/4$, $1/8$

A. Kûringanîra tûcuncî

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûringanîra tucuncî twa $1/2$, $1/3$, $1/8$

Îgiita: Reconi inya (4)

Mariîtwa ma gîtûmi: nucu, robo, îmwê kwa inyaanya

Into bia kûthooma / kûthoomithia: cati

Ngûgî cia kûthooma / kûthoomithia:

Tongoria arutwa kûringanîra tûcuncî tûra tûrî na naamba cia ûkona i buaneene.

Wîra: îbuku rîa mûrutwa karatati ka 44-45

Macookio ma biûria: Wîra ya biûria 1,

a) $2/8$ b) $7/8$ c) $3/4$ d) $4/8$ e) $4/4$
f) $3/4$ g) $4/4$ h) $2/2$ i) $8/8$

Macookio ma biûria: Wîra ya biûria 2, karataati ka 45

1. $5/8$ 2. 1 kana $4/4$, 3. $8/8$ kana 1
4. $5/8$ 5. $7/8$ 6. $3/4$ 7. $3/4$
8. $4/4$ kana 1

B. Kûrutithania tûcuncî

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûrutithania tûcuncî.

Îgiita: Reconi inya (4)

Mariîtwa ma gîtûmi: tûcuncî

Into bia kûthooma / kûthoomithia: Cati

Ngûgî cia kûthooma / kûthoomithia

Tongoria arutwa kûrutithania naamba cia îgûrû ira naamba cia ûkona i buaneene.

Wîra: Îbuku rîa mûrutwa karataati ka 47-49

Macookio ma biûria:

- | | | | |
|------------------|-------------------|------------------|------------------|
| 1. $\frac{3}{8}$ | 2. 0 | 3. $\frac{6}{8}$ | 4. $\frac{2}{4}$ |
| 5. $\frac{2}{8}$ | 6. $\frac{3}{8}$ | 7. $\frac{4}{8}$ | 8. $\frac{6}{8}$ |
| 9. $\frac{3}{8}$ | 10. $\frac{1}{4}$ | | |

Kûringanîra na kûrutithania tûcuncî:

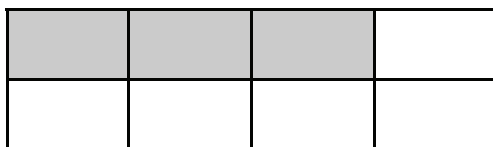
Macookio ma biûria: Karataati ka 47-48

- | | | | |
|-------------------------|-------------------|------------------|------------------|
| 1. $\frac{4}{4}$ kana 1 | 2. $\frac{3}{4}$ | 3. $\frac{3}{4}$ | 4. $\frac{7}{8}$ |
| 5. $\frac{4}{8}$ | 6. $\frac{5}{8}$ | 7. $\frac{3}{4}$ | 8. $\frac{1}{8}$ |
| 9. $\frac{2}{2}$ kana 1 | 10. $\frac{1}{4}$ | | |

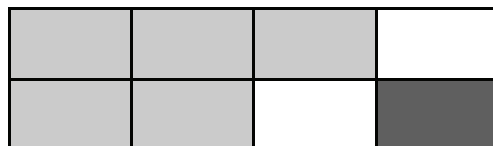
11. $\frac{4}{4} - \frac{1}{4} = \frac{3}{4}$ 12. $\frac{2}{4} - \frac{2}{4} = \frac{4}{4}$ kana 1

13. $\frac{1}{4} + \frac{2}{4} = \frac{3}{4}$

14.



15.



$$\begin{array}{ccccccc} 5/8 & + & 1/8 & = & 6/8 \\ \text{yellow} & & \text{blue} & & \text{yellow and blue} \end{array}$$

Kûrutithania tûcuncî

Macookio ma biûria 1: Karataati ka 49

1. $7/8 - 2/8 = 5/8$
2. $3/4 - 1/4 = 2/4$

Wîra ya biûria 2: Karataati ka 49

1. a) $3/8$ b) $3/8$ c) $2/8$ d) $1/4$ e) $1/4$
2. $3/8 - 2/4 = 1/4$

GÎCUNCÎ KÎA BITAANO: Kûthima

Mworooto:

Mûthiani wa gîcuncî gîkî, mûrutwa akaûmba:

1. kûthima moraaya mwanya mwanya agîtûmagîra mita ta kîthimi
2. gûtara mathaabu ma kuugithia maita na kûgaîra bagîtûmagîra ûraaya bwa mita.

A. Ûraaya

Mworooto:

Mûthiani wa kîthoomo gikî, mûrutwa akaûmba kûthima ûraaya agîtûmagîra mita.

Îgiita: Reconi ithatû (3)

Mariîtwâ ma gîtûmi: ûraaya, mita

Into bia kûthooma / kûthoomithia: ruura rwa mita îmwê

Ngûgî cia kûthooma / kûthoomithia:

Tongoria arutwa kûthima ma ûraaya mwanya mwanya

Wîra: Îbuku rîa mûrutwa karataati ka 52

Macookio ma biûria:

1. mita 120
2. mita 80
3. mita 200
4. mita 160
5. mita 240

B. Kuugithia maita na kûgaîra

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kugithia maita na kûgaîra agîtûmagîra mita.

Îgiita: Reconi ithtû (3)

Mariîtwa ma gîtûmi:

rwano (x , $\div$)

Into bia kûthooma / kûthoomithia: kîbaaû, cati

Ngûgî cia kûthooma / kûthoomithia:

Tongoria arutwa gûtara mathaabu ma ûraaya bagîtûmagîra rwano rwa kûgaîra na kuugithia maita.

Wîra: Îbuku rîa mûrutwa karataati ka 53

Macookio ma biûria:

- | | | |
|----------|-----------|-----------|
| 1. 30 m. | 7. 64 m. | 13. 8 m. |
| 2. 66 m. | 8. 48 m. | 14. 8 m. |
| 3. 36 m. | 9. 88 m. | 15. 22 m. |
| 4. 30 m. | 10. 15 m. | 16. 5 m. |
| 5. 70 m. | 11. 11 m. | 17. 7 m. |
| 6. 33 m. | 12. 22 m. | |

GÎCUNCÎ KÎA BITHANTHATÛ: Ûrito

Mworooto:

Mûthiani wa gîcuncî gîkî, mûrutwa akaûmba kwathûrana na gûtûmîra kirû ta kîthimi gîa kûthima ûrito.

A. Kûthima into na kirû

Mworooto:

Mûthiani wa kîthoomo gîkî mûrutwa akaûmba kûringanîra mathaabu ma kirû

Îgiita: Reconi ithatû (3)

Mariîtwa ma gîtûmi: kirû, kîthimi, ûrito

Into bia kûthooma / kûthoomithia: maiga, mabuku, iti n.b.b.

1. Oneeria arutwa kûthima into bia ûrito mwanya mwanya
2. Arutwa i batûmîre kîthimi kîa ratiiri

Wîra: Îbuku rîa mûrutwa karataati ka 56

Macookio ma biûria:

- | | |
|--------------|-------------|
| 1. kirû 7 | 2. kirû 12 |
| 3. kirû 4 | 4. kirû 10 |
| 5. kirû 3 | 6. kirû 2 |
| 7. kirû 14 | 8. kirû 20 |
| 9. kirû 11 | 10. kirû 23 |
| 11. kirû 16 | 12. kirû 2 |
| 13. kirû 263 | 14. kirû 60 |
| 15. kirû 22 | |

GÎCUNCÎ KÎA MÛGWANJA: Mûthûûmba

Mworooto:

Mûthiani wa gîcuncî gîkî, mûrutwa akaûmba:

1. kûmenya na kwathûrana rita kîrî kîthimi kîa mma gîa kûthima mûthûûmba.
2. kûthima mûthûûmba ûkîûyûraga rita na nucu rita.
3. gûtara mathaabu ma kûringanîra na kûrutithania rita na nucu rita.

A. Kûthima Mûthûûmba

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûthima rita na nucu rita bagîtûmagîra ithimi mwanya mwanya.

Îgiita: Reconi inya (4)

Mariîtwa ma gîtûmi: rita, mûthûûmba.

Into bia kûthooma / kûthoomithia: mîkebe, cûûba, rûûyî, n.b.b.

Ngûgî cia kûthooma / kûthoomithia:

Tongoria arutwa kûthima rûûyî bagîtûmagîra mîcûûba, mîkebe, na ndebe.

Wîra: îbuku rîa mûrutwa karataati ka 58-57

Macookio ma biûria 1: Karataati ka 58

1.	4	2.	14	3.	32	4.	20	5.	24
6.	34	7.	9	8.	8	9.	3	10.	4

Macookio ma biûria 2: Karataati ka 58

1.	11	2.	12	3.	24	4.	1	5.	30
6.	9	7.	6	8.	4	9.	4	10.	5

GÎCUNCÎ KÎA BINAANA: Mbia

Mworooto:

Mûthiani wa gîcuncî gîkî, mûrutwa akaûmba:

1. kûmenya kwathûrana kathangû ka ngiri
2. gûtara mathaabu ma kûringanîra na kûrutithania ciringi na mang'otore atagûcencia
3. kuugithania maita na kûgaîra ciringi na mang'otore atagûcencia.

A. Menya mbia ciaku

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûmenya na kwathûrana kathangû ka ngiri.

Îgiita: Reconi itaano (5)

Mariîtwa ma gîtûmi: mbia, ngiri.

Into bia kûthooma / kûthoomithia:

mbia mwanya mwanya cia mûthere na cia mathangû

Ngûgî cia kûthooma / kûthoomithia:

Tongoria arutwa kwathûrana mbia cia mûthere na cia mathangû.

Wîra: îbuku rîa mûrutwa karataati ka 59-63

Macookio ma biûria:

a) 5 10 cumuni 20 40 1

b) îkûmi na ithanthatû (16)

mîrongo ithanthatû na itaano (65)

mîrongo itaano na cumuni (50.50)

îgana ria îkûmi (110)

mîrongo yîîrî na itaano (25)

B. Bunjia mbia

Macookio: Karataati ka 63

1) 4 2) 4 3) 2 4) 10 5) 8 6) 10

C. Mbia cia mathaangû

Macookio ma biûria: Karataati ka 73

1) 2 2) 5 3) 10 4) 20 5) 5 6) 4 7) 10

2200 1500 2000 1800 1850

1600 1400 2000 900

D. Kûringanîra na kûruta mathaabu ma mbia

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûringanîra na kûruta ûgûri bwa into mwanya mwanya.

Îgiita: Reconi ithatû (3)

Mariîtwo ma gîtûmi: mbia, ciringi

Into bia kûthooma / kûthoomithia: mbia, into bia thoko.

Ngûgî cia kûthooma / kûthoomithia:

1. Aranîria na arutwa ûgûri bwa into bia thoko na ndukaani
2. Tongoria arutwa kûringanîra na kûruta ûgûri mwanya mwanya.

Wîra: Îbuku rîa mûrutwa karataati ka 83

a) 60 b) 50 c) 30 d) 80 e) 110 f) 135

Macookio ma biûria 1: Karataati ka 84

1. 20
2. 25
3. 305

Macookio ma biûria 2: Karataati ka 85

1.	8	60	2.	19	55
3.	51	90	4.	98	70
5.	141	85	6.	177	80
7.	211	15	8.	298	85
9.	305	10	10.	215	30

Kûrutithania mbia: Wîra karataati ka 86-87**Macookio ma biûria 1**

1.	29	45	2.	6	80	3.	00	85
4.	14	00	5.	87	60	6.	25	30
7.	07	00	8.	71	15	9.	34	70
10.	110	15	11.	34	00	12.	10	00

Macookio ma biûria: Karataati ka 88-90

1. 3200 2. 8350 3. 3280 4. 3550
5. 11200

6. i) 2000 ii) 5865 iii) 250 iv) 150
v) 3480 vi) 650

E. Kuugithania maita mathaabu ma mbia**Mworooto:**

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûringa maita mathaabu ma mbia.

Into bia kûthooma / kûthoomithia: mbia mwanya mwanya, cati

Ngûgî cia kûthooma / kûthoomithia:

Tongoria arutwa kuugithia mbia maita.

Wîra: Karataati ka 91

Macookio ma biûria 1:

- | | | | | | | |
|-------|-------|--------|-------|-------|-------|--|
| 1. 40 | 49 | 36 | 30 | 60 | | |
| 2. 15 | 3. 36 | 4. 64 | 5. 63 | 6. 40 | 7. 42 | |
| 8. 40 | 9. 14 | 10. 80 | | | | |

Macookio ma biûria 2: Karataati ka 92-93

- | | | | | | |
|------------|----|-------|----|-------|----|
| 1. 15 | 90 | 2. 56 | 40 | 3. 37 | 25 |
| 4. 24 | 75 | 5. 40 | 60 | 6. 69 | 20 |
| 7. ciringi | 72 | 8. 41 | 20 | | |

Kûgaa mbia:

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûgaa mbia.

Îgiita: Reconi inya (4)

Mariîtwo ma gîtûmi: mbia, kûgaîra.

Into bia kûthooma / kûthoomithia: cati, kîbaû

Ngûgî cia kûthooma / kûthoomithia:

- ririkania arutwa mathaabu ma kûgaîra
- bathomithie kûgaîra mbia kwambîria
- ciringi rîru mang'otore

Wîra: îbuku rîa mûrutwa karataati ka 94-96

Macookio ma biûria 1: Karataati ka 94

- | | | | | |
|-------|-------|-------|-------|-------|
| 1. 5 | 2. 8 | 3. 9 | 4. 9 | 5. 9 |
| 6. 8 | 7. 7 | 8. 9 | 9. 4 | 10. 8 |
| 11. 9 | 12. 7 | 13. 8 | 14. 5 | |

← Error in pupil's book.
Correct 45 to 35

Macookio ma biûria 2: Karataati ka 96

1.	9	40	2.	9	10	3.	8	10
4.	6	10	5.	5	10	6.	4	80
7.	8	10	8.	6	10	9.	12	10
10.	12	10						

Error in pupil's book.

Correct

$$\begin{array}{r|l} & \text{ci} \quad \text{ma} \\ 5 & 20 \quad 8 \end{array}$$

to

$$\begin{array}{r|l} & \text{ci} \quad \text{ma} \\ 5 & 24 \quad 0 \end{array}$$

GÎCUNCÎ KÎA KEENDA: Thaa

Mworooto:

Mûthiani wa gîcuncî gîkî, mûrutwa akaûmba

- a. kûgarûra ntugû i twika biumia na biumia bituika ntugû
- b. gûtara mathaabu ma kûringanîra na kûgaîra ntugû na biumia akîgarûraga na atakûgarûra
- c. kûthooma, kwandîka na kûgweta thaa na mathaa, nucu îthaa na robo ya îthaa.

A. Ntugû cia kiumia

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûgarûra ntugû ituîka biumia na biumia bituîka ntugû.

Îgiita: Reconi ithatû (3)

Mariîtwa ma gîtûmi: ntugû, kiumia, garûra

Into bia kûthooma / kûthoomithia: Cati

Ngûgî cia kûthooma / kûthoomithia:

1. Tongoria arutwa gûtara i ntugû igana irûthaga kiumia.
2. Rutana arutwa kûgarûra ntugû ituîka kiumia na njîra ya kûgaîra.
3. Rutana arutwa kûgarûra kiumia gîtuîka ntugû na njîra ya kuugithania maita

Wîra: îbuku ria mûrutwa karataati ka 97

Macookio:

1. 2 4 6 Aramici ncumamoci

Macookio ma biûria 1: Karataati ka 97-98

2. c) 31 d) 30 e) 31 g) 31
h) 31 i) 30 j) 31

Macookio ma biûria 2: Karataati ka 98

- a. 21 b. 35 c. 49 d. 14
e. 56 f. 70 g. 42 h. 63

Macookio ma biûria 3: Karataati ka 99

- a. 23 b. 32 c. 19 d. 37
e. 58 f. 39 g. 66

Macookio: Karataati ka 99

- a. 4 b. 5 c. 9 d. 10
e. 2 f. 8 g. 6 h. 4

- b) biumia ntugû biumia ntugû
 8 5 5 4

- a. 5 5 b. 5 5 biumia ntugû
c. 10 3

- biumia ntugû
d. 4 6

- e. 15 6 f. 10 0 g. 9 6 h. 9 6
i. i ntugû 17 j. i biumia 3

C. Macookio ma biûria: Karataati ka 101-102

- biumia ntugû biumia ntugû biumia ntugû
a) 4 2 b) 1 2 c) 2 2

- biumia ntugû biumia ntugû biumia ntugû
d) 1 1 e) 1 1 f) 3 0

	biumia	ntugû		biumia	ntugû
g)	5	1	h)	5	2

B. Mathaa

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûthooma, kwandîka, kûringanîra, na kûrutithania mathaa.

Îgiita: Reconi itaano (5)

Mariîtwa ma gîtûmi: thaa, ndarîka.

Into bia kûthooma / kûthoomithia:

- thaa yongwa, cati

Ngûgî cia kûthooma / kûthoomithia:

- rutana arutwa kûthooma thaa.

- tongoria arutwa kwandîka, kûgweta mathaa na ndarîka.

Wîra: Îbuku rîa mûrutwa karataati ka 103

Macookio ma biûria 1:

1.	mathoo	ndarîka		mathaa	ndarîka
a)	11	50	b)	11	50
c)	11	50	d)	7	55
e)	7	50	f)	6	40

Macookio ma biûria 2: karataati ka 104

	mathaa	ndarîka		mathaa	ndarîka
1.	2	40	2.	1	10
3.	4	13	4.	0	08
5.	6	32	6.	2	12

	mathaa	ndarîka		mathaa	ndarîka
7.	5	05	8.	4	05
9.	4	00	10.	7	14

Macookioma biûria 3: Karataati ka 105-106

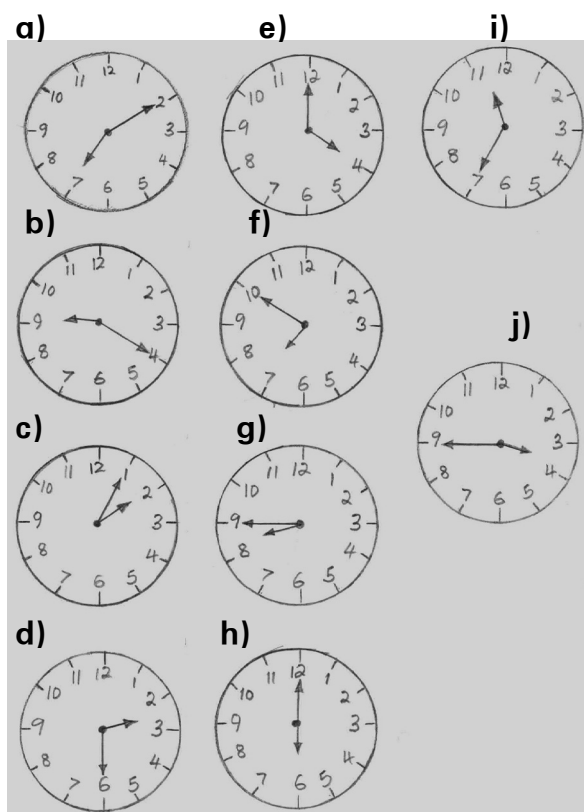
3. - ciîrî i rûûngi

- keenda i rûûngi
- îmwê îtigêerie ndarîka îkûmi
- îkûmi na îmwê na ndarîka îkûmi
- mûgwanja i tigêerie robo

4. - ithatû na nucu

- mûgwanja na robo
- ciîrî na ndarîka mîrongo îîrî na itaano
- kûmi i ruungi
- itaano i tigêerie mîrongo yîîrî.

Macookio: Karataati ka 107



GÎCUNCÎ GÎA ÎKÛMI: Mathaabu ma mîcooro

Mworooto:

Mûthiani wa gîcuncî gîkî, mûrutwa akaûmba kûrûtha mataane mîraba mîraaya, koona ithatû, ithiûrûûrî, na ithiûrûûrî îkome.

A. Kûbaanga mîcooro mwanya mwanya

Mworooto:

Mûthiani wa kîthoomo gîkî, mûrutwa akaûmba kûthimithania mîcooro mwanya mwanya na mariîtwa maayo.

Îgiita: Reconi inyaanya (8)

Mariîtwa ma gîtûmi: thimithania

Into bia kûthooma / kûthoomithia: cati, mîcooro

Ngûgî cia kûthooma / kûthoomithia:

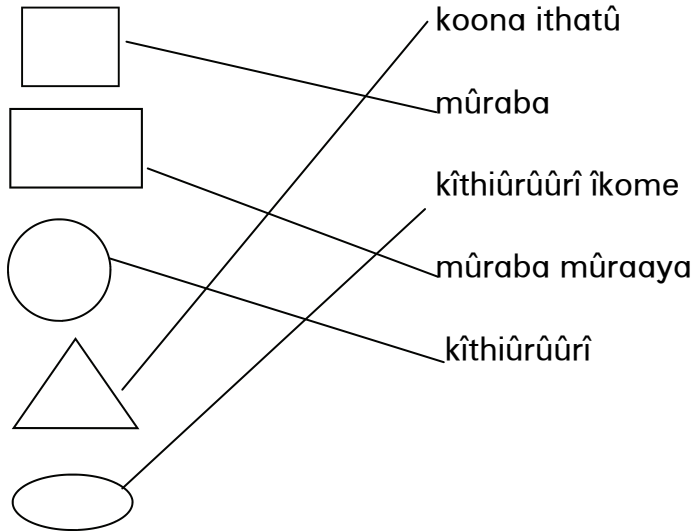
Tongoria arutwa kwathûrana mîcooro mwanya mwanya na mariîtwa mayo.

Wîra: Îbuku rîa mûrutwa karataati ka 108

Macookio ma biûria: Karatati ka 108

Mbica

Riîtwâ



2. Macookio: Karataati ka 109-100

2. a) 3
b) 3
c) 6

3. a) 5 kana nkûrûki
b) 6 kana nkûrûki
d) (i) 6 (ii) 4

4. (i) 4 (ii) 5

For question 4, note that the rectangles in the drawing should be squares. They were drawn incorrectly.

5. (i) 6 (ii) 6 (iii) 4

6. a) 4