MATHEMATICS

Grade 3

English/ Tshivenḓa

Teacher's Resource Pack

2019 TERM 3

Contents

1 Printable Resources

Printable resource sheets

This is a list of the mathematical resources that you will need this term. You need to make sure that you have them for the lessons for which they are recommended.

RESOURCES FOR EACH DAY OF TEACHING

There are also other resources such as informal resources (old magazines, pieces of string, scrap paper, etc.) that you may need in certain lessons. You should have a careful look at the list of resources needed for each lesson; this list is given in the lesson plans each day. Prepare yourself, so that you have the necessary resources for the lessons on a daily basis.

ZWIKO ZWA U FUNZA ZWA ḌUVHA NGA ḌUVHA

Hu na zwiko zwiṅwevho zwi no nga zwiko zwi si zwa fomaḽa (magazini ya kale, zwipiḓa zwa vhutambo/miḓali, mabammbiri o no shumiswaho, nzw.) zwine vha nga zwi shumisa kha dziṅwe dza ngudo. Vha tea u sedza mutevhe wa zwiko nga vhuronwane une wa ḓo shumiswa kha ngudo iṅwe na iṅwe; mutevhe uyu u sumbedzwa kha pulane ya ngudo ya ḓuvha ḽiṅwe na ḽiṅwe. Kha vha ḓilugise, uri ḓuvha ḽiṅwe na ḽiṅwe vha vhe vhe na zwiko zwo teaho ngudo.

1 Array diagram (lesson 1 and other)

Nyolo ya arei/mbekanywa (ngudo ya 1 na iṅwe)

Array diagram for multiplication table Nyolo ya arei ya thebuḽu ya muandiso										
	1	2	3	4	5	6	7	8	9	10
1	●	●	●	●	●	●	●	●	●	●
2	●	●	●	●	●	●	●	●	●	●
3	●	●	●	●	●	●	●	●	●	●
4	●	●	●	●	●	●	●	●	●	●
5	●	●	●	●	●	●	●	●	●	●
6	●	●	●	●	●	●	●	●	●	●
7	●	●	●	●	●	●	●	●	●	●
8	●	●	●	●	●	●	●	●	●	●
9	●	●	●	●	●	●	●	●	●	●
10	●	●	●	●	●	●	●	●	●	●

2 Multiplication cards (lesson 1 and other)
Garaṱa dza muandiso (ngudo ya 1 na iṅwe)

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

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

4 Multiplication cards (lesson 1 and other)
Garaṱa dza muandiso (ngudo ya 1 na iṅwe)

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

5 Multiplication table (lesson 2 and other)

Thebuḽu ya muandiso (ngudo ya 2 na iṅwe)

	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

6 Squares template (lesson 37)

Themphuḽeithi ya zwikwea (ngudo ya 37)

7 Money cut-outs – coins (lesson 39–42)

Zwigeriwa zwa tshelede – dzikhoini (ngudo ya 39–42)

8 Money cut-outs – notes (lesson 39–42)

Zwigeriwa zwa tshelede – dzinoutu (ngudo ya 39–42)

9 Money cut-outs – notes (lesson 39–42)

Zwigeriwa zwa tshelede – dzinoutu (ngudo ya 39–42)

2 Written assessments

Written Assessment Lesson 6

U linga ha u ṅwala Ngudo ya 6

1 Draw an array to show the multiple and write the answer below the array:
Olani arei ni tshi sumbedza nyandisi ni ṅwale phindulo fhasi ha arei iyo: (4)

	Multiple Nyandisi	Array Arei		Multiple Nyandisi	Array Arei
a	4 × 3		b	3 × 4	
c	3 × 6		d	6 × 3	

2 Solve the problems:

Tandululani thaidzo/Shumani mbalo: (3 × 4 = 12)

a	There are 8 flowers. Share the flowers equally between 4 children. How many flowers will each child get? Hu na maluvha a 8. A kovheleni vhana vha 4 a tshi lingana. Ṅwana muṅwe na muṅwe u ḓo wana maluvha mangana?	
	Write the number sentence. Ṅwalani fhungombalo.	
	Write the answer. Ṅwalani phindulo.	
b	There are 16 oranges. Share the oranges between 4 children equally. How many oranges will each child get? Hu na maswiri a 16. A kovheleni vhana vha 4 a tshi lingana. Ṅwana muṅwe na muṅwe u ḓo wana maswiri mangana?	
	Write the number sentence. Ṅwalani fhungombalo.	
	Write the answer. Ṅwalani phindulo.	

<table>
<tr><td rowspan="3">c</td><td colspan="2">There are 12 books.
Share the books between 4 learners.
How many books will each learner get?
Hu na bugu dza 12.
Dzi kovheleni vhagudi vha 4.
Mugudi muṅwe na muṅwe u ḓo wana bugu nngana?</td></tr>
<tr><td>Write the number sentence.
Ṅwalani fhungombalo.</td><td></td></tr>
<tr><td>Write the answer.
Ṅwalani phindulo.</td><td></td></tr>
</table>

Written Assessment Lesson 11

U linga ha u ṅwala Ngudo ya 11

1 Solve the problems:

Tandululani thaidzo: (3 × 3 = 9)

a	There are 20 apples. Share the apples between 2 children equally. How many apples will each child get? Hu na maapula a 20. A kovheleni vhana vha 2 a tshi lingana. Ṅwana muṅwe na muṅwe u ḓo wana maapula mangana?	
	Draw a diagram. Olani nyolo.	
	Write the number sentence. Ṅwalani fhungombalo.	
	Write the answer. Ṅwalani phindulo.	

<table>
<tr><td rowspan="4">b</td><td colspan="2">There are 15 sweets.
You give 5 sweets to each learner.
How many learners will get sweets?
Hu na maḽegere a 15.
Ni ṋea mugudi muṅwe na muṅwe maḽegere a 5.
Ndi vhagudi vhangana vhane vha ḓo wana maḽegere?</td></tr>
<tr><td>Draw a diagram.
Olani nyolo.</td><td></td></tr>
<tr><td>Write the number sentence.
Ṅwalani fhungombalo.</td><td></td></tr>
<tr><td>Write the answer.
Ṅwalani phindulo.</td><td></td></tr>
<tr><td rowspan="4">c</td><td colspan="2">There are 20 books.
4 children each take an equal number of books.
How many books will each child take?
Hu na bugu dza 20.
Muṅwe na muṅwe wa vhana vha 4 u dzhia bugu dza tshivhalo tshi no lingana.
Ṅwana muṅwe na muṅwe u ḓo dzhia bugu nngana?</td></tr>
<tr><td>Draw a diagram.
Olani nyolo.</td><td></td></tr>
<tr><td>Write the number sentence.
Ṅwalani fhungombalo.</td><td></td></tr>
<tr><td>Write the answer.
Ṅwalani phindulo.</td><td></td></tr>
</table>

2 Use multiplication facts to complete the table.

Shumisani zwiandisi/nyandisi kha u fhedzisa thebuḽu iyi. (8)

		□ × _____ = _____	□ = _____
a	81 ÷ 9 = □		
b	35 ÷ 7 = □		
c	32 ÷ 8 = □		
d	42 ÷ 6 = □		

Written Assessment Lesson 17

U linga ha u ṅwala Ngudo ya 17

1 Solve the problems:

Tandululani thaidzo: (4 × 3 = 12)

a	There are 60 marbles. Share the marbles between 10 friends. How many marbles will each friend get? Hu na mimavhu̱u ya 60. I kovheleni khonani dza 10. Khonani iṅwe na iṅwe i ḓo wana mimavhu̱u mingana?	
	Write the number sentence. Ṅwalani fhungombalo.	
	Turn it into multiplication. L̨i shanduleni i̱i vhe muandiso.	
	Write the answer. Ṅwalani phindulo.	
b	There are 24 flowers. Share the flowers between 3 teachers. How many flowers will each teacher get? Hu na maluvha a 24. A kovheleni vhadededzi vha 3. Mudededzi muṅwe na muṅwe u ḓo wana maluvha mangana?	
	Write the number sentence. Ṅwalani fhungombalo.	
	Turn it into multiplication. L̨i shanduleni i̱i vhe muandiso.	
	Write the answer. Ṅwalani phindulo.	

c	There are 72 apples. The apples need to be packed into bags with 9 apples in a bag. How many bags will you need? Hu na maapula a 72. Maapula a tea u pangiwa phakheteni zwi re na maapula a 9 phakhetheni nthihi. Ni fanela u shumisa phakhethe nngana?	
	Write the number sentence. Ṅwalani fhungombalo.	
	Turn it into multiplication. L̂i shanduleni l̂i vhe muandiso.	
	Write the answer. Ṅwalani phindulo.	
d	There are 40 m of orange ribbon and 5 m of blue ribbon. How many times longer is the orange ribbon than the blue ribbon? Hu na riboni ya tshitopana ya 40 m na ya lutombo ya 5 m. Riboni ya tshitopana yo lapfa u fhira ya lutombo nga vhulapfu vhungafhani?	
	Write the number sentence. Ṅwalani fhungombalo.	
	Turn it into multiplication. L̂i shanduleni l̂i vhe muandiso.	
	Write the answer. Ṅwalani phindulo.	

2 Calculate:

Rekanyani: (10)

a 56 ÷ 8 = _____

b 42 ÷ 7 = _____

c 9 ÷ 9 = _____

d 15 ÷ 5 = _____

e 7 ÷ 1 = _____

f 48 ÷ 6 = _____

g 12 ÷ 4 = _____

h 72 ÷ 8 = _____

i 63 ÷ 9 = _____

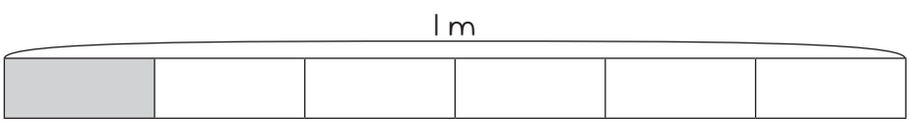
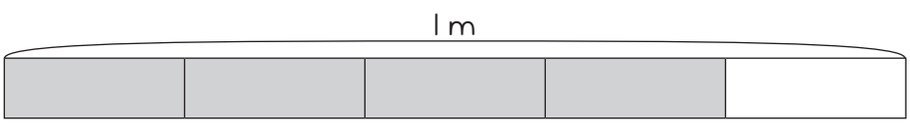
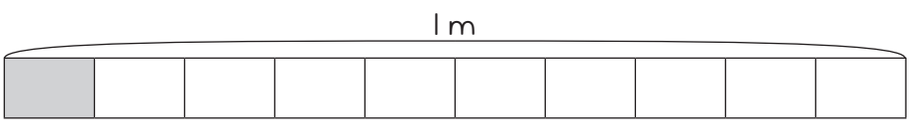
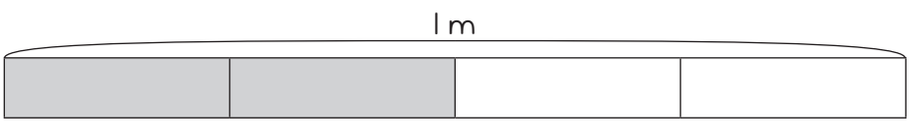
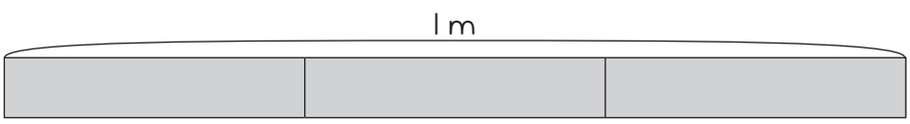
j 0 ÷ 8 = _____

Written Assessment Lesson 23

U linga ha u ṅwala Ngudo ya 23

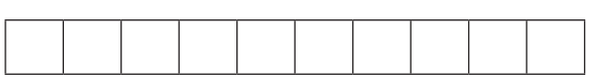
1 What is the length of the shaded part?

Vhulapfu ha tshipiḓa tsho swifhadzwaho ndi mini? (7)

a		
b		
c		
d		
e		
f		
g		

2 Complete the table:

Fhedzisani thebu̱lu iyi: (10)

		Shade the bar diagram to show the fraction Swifhadzani tshatidungo ni tshi sumbedza furakhisheni/tshipi̱da	Fraction Furakhisheni
a	Four quarters Kota nṉa		
b	Three tenths Zwafumi zwiraru		
c	Two sixths Zwarathi zwivhili		
d	Five fifths Zwa̱thanu zwi̱tanu		
e	Seven eighths Zwamalo zwi̱tanu		

Written Assessment Lesson 31

U linga ha u ṅwala Ngudo ya 31

1 Write the fractions on the number line and compare the.

Ṅwalani furakhisheni kha mutalombalo ni dzi vhambedze. (9)

	Write the fractions in the correct place on the number lines. Ṅwalani furakhisheni fhethu ho teaho kha mitalombalo.		Which fraction is larger? Ndi furakhisheni ifhio i re khulwane?
a	$\frac{3}{4}$ and $\frac{2}{4}$ na		
b	$\frac{7}{10}$ and $\frac{9}{10}$ na		
c	$\frac{1}{3}$ and $\frac{3}{3}$ na		

2 Solve the problems:

Tandululani thaidzo: (2 × 3 = 6)

<table>
<tr><td rowspan="4">a</td><td colspan="2">Bongi drew a $\frac{3}{6}$ m line in the sand.
She then added another $\frac{1}{6}$ m to the line she drew.
How long is the line Bongi drew now?
Bongi o tala mutalo wa $\frac{3}{6}$ m mavuni.
A engedza mutalo we a tala nga $\frac{1}{6}$ m.
Mutalo we Bongi a tala wo no lapfa zwingafhani zwino?</td></tr>
<tr><td>Draw the bar diagram.
Olani nyolo.</td><td></td></tr>
<tr><td>Write the number sentence.
Ṅwalani fhungombalo.</td><td></td></tr>
<tr><td>Write the answer.
Ṅwalani phindulo.</td><td></td></tr>
<tr><td rowspan="4">b</td><td colspan="2">Dad has $\frac{9}{10}$ L of juice.
He drinks $\frac{5}{10}$ L of the juice.
How much juice does Dad have left?
Baba vha na $\frac{9}{10}$ L ya dzhusi.
Vha nwa $\frac{5}{10}$ L ya iyi dzhusi.
Baba vho salelwa nga dzhusi nngafhani?</td></tr>
<tr><td>Draw the number line.
Olani mutalombalo.</td><td></td></tr>
<tr><td>Write the number sentence.
Ṅwalani fhungombalo.</td><td></td></tr>
<tr><td>Write the answer.
Ṅwalani phindulo.</td><td></td></tr>
</table>

3 Solve the problem:

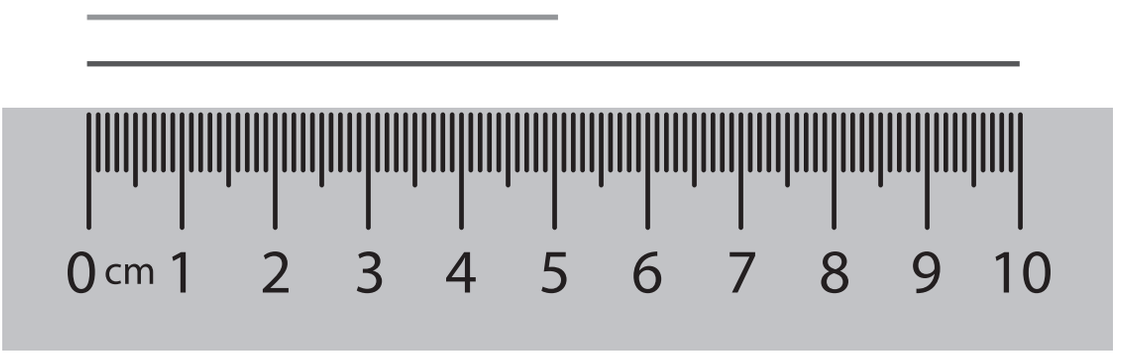
Tandululani thaidzo: (3)

Sli has 21 apples. She gives $\frac{2}{3}$ of her apples to her friends. How many apples does she give away? Sli u na maapula a 21. U fha khonani dzawe $\frac{2}{3}$ ya aya maapula. U vha fha maapula mangana?	
Draw the diagram. Olani nyolo. Dots Zwithoma Fractions Furakhisheni	
Write the number sentences to show $\frac{2}{3}$ of 21. Ṅwalani fhungombalo ni tshi sumbedza $\frac{2}{3}$ ya 21.	
Write the answer. Ṅwalani phindulo.	

Written Assessment Lesson 38

U linga ha u ṅwala Ngudo ya 38

1 Use the ruler in the drawing to find the lengths:
Shumisani ruḽa i re kha nyolo iyi kha u wana vhulapfu: (3)



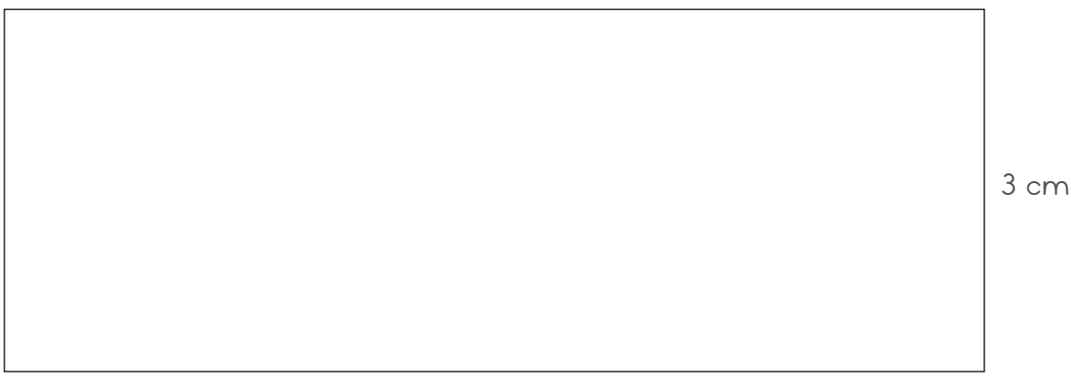
a How long is the shortest line?
Mutalo mupfufhisesa ndi mungafhani? _____ cm.

b How long is the longest line?
Mutalo mulapfusesa ndi mungafhani? _____ cm.

c How long are both lines together?
Mitalo vhuvhili hayo ndi mingafhani? _____ cm.

2 Calculate the perimeter of this rectangle.

Rekanyani pherimitha/vhunnḓa/mudzinge wa thiraiengele iyi. (3)

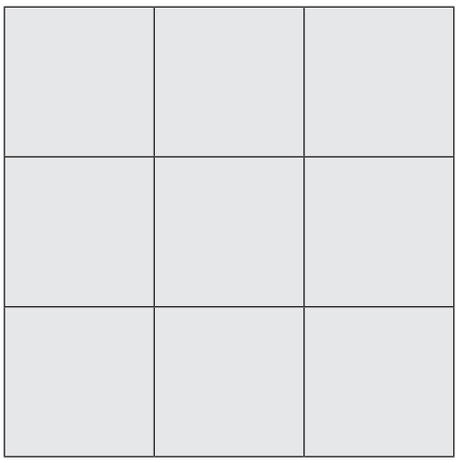


3 Draw a shape on the grid with a perimeter of 12 units.

Olani tshivhumbeo tshi re na pherimitha ya yuniti dza 12. (3)

4 What is the area of this square? _____tiles.

Nyalo ya tshikwea itshi ndi mini? Thaiḽi dza _____ . (2)



5 Draw a shape on the grid with an area of 6 tiles.

Olani tshivhumbeo tshi re na nyalo ya thaiḽi dza 6. (2)

Written Assessment Lesson 43

U linga ha u ṅwala Ngudo ya 43

1 R5 + R3 = _____ (1)

2 20c + 70c = _____ (1)

3 Draw notes to show two different ways to make R100 using only bank notes.

Olani dzinoutu ni tshi sumbedza nḓila mbili dzo fhambanaho dza u ita R100 ni tshi shumisa fhedzi tshelede ya dzinoutu. (2)

4 Rialivhuwa has four 50c coins and two 20c coins.

Rialivhuwa u na khoini nṋa dza 50c na khoini mbili dza 20c.

a How much money does Rialivhuwa have?

Rialivhuwa u na vhugai? _____ (2)

b Apples cost 90c. How much will two apples cost?

Maapula a ḓura 90c. Maapula mavhili a ḓura vhugai?

_____ (2)

c How much money will Rialivhuwa have left if he buys 2 apples?

Rialivhuwa u ḓo vha o salelwa nga vhugai arali a nga renga maapula a 2?

_____ (2)

5 Lusanda pays R2,50 to take a taxi to school. The train costs R6 for a return ticket.

Lusanda u badela R2.50 kha thekhisi a no ya ngayo tshikoloni. Thikhithi ya u ya na u vhuya (rithene) ya tshidimela ndi R6.

a What is the cost of a return taxi trip?

Lwendo lwa u ya na u vhuya nga thekhisi ndi vhugai?

_____ (2)

b What is the cost of a return train trip?

Lwendo lwa u ya na u vhuya nga tshidimela ndi vhugai?

_____ (1)

c Which is cheaper, the train or the taxi?

Tshi sa ḓuri (tsho tshipaho) ndi mini kha tshidimela na thekhisi?

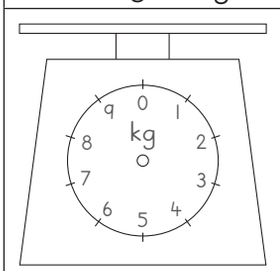
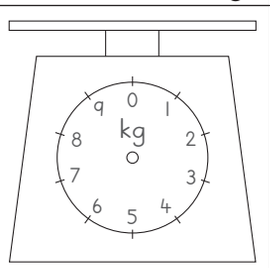
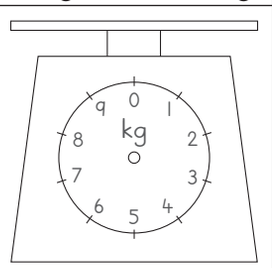
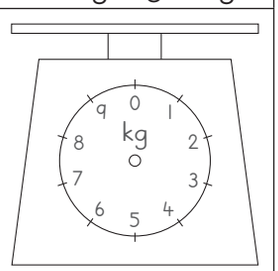
_____ (1)

Written Assessment Lesson 49

U linga ha u ṅwala Ngudo ya 49

1 Draw the pointers on the kitchen scales to show the masses:

Olani zwisumbi kha zwikalo zwa khishini ni tshi sumbedza zwileme. (4)

2 kg rice Raisi ya 2 kg	5 kg potatoes Maḓabula a 5 kg	10 kg mealie meal Mugayo wa 10 kg	1 kg sugar Swigiri ya 1 kg
			

2 Use the products from Question 1 to complete the following:

Shumisani zwibveledzwa zwi re kha Mbudziso ya 1 kha u fhedzisa zwi tevhelaho: (4 × 2 = 8)

a Mom bought mealie meal and rice. What is the total mass of her products?

Mma vho renga mugayo/vhukhopfu na raisi. Tshilemeguṱe tsha zwibveledzwa zwavho ndi mini?

_____

b I bought some rice, sugar and potatoes. What is the total mass of my products?

Ndo renga raisi, swigiri na maḓabula. Tshilemeguṱe tsha zwibveledzwa zwanga ndi mini?

_____

c Dad bought sugar and mealie meal. What is the total mass of his products?

Baba vho renga swigiri na mugayo/vhukhopfu. Tshilemeguṱe tsha zwibveledzwa zwavho ndi mini?

_____

d My sister bought mealie meal, sugar and rice. What is the total mass of her products?

Khaladzi anga o renga mugayo/vhukhopfu swigiri na raisi. Tshilemeguṱe tsha zwibveledzwa zwawe ndi mini?

_____

3 How many grams are there in 1kg?

Hu na gireme nngana kha 1 kg? _____ (1)

4 800 g – 300 g = _____ (1)

5 1 kg – 500 g = _____ (1)