



# basic education

Department:  
Basic Education  
**REPUBLIC OF SOUTH AFRICA**

## **Grade 3 Mathematics** **Mental Starters Assessment Project (MSAP)**

### **Mental Starters: Tasks and Assessments**

### **TEACHER GUIDE: SEPEDI**





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## DITENG

MATSENO .....	iii
Go kgaoletša ka lesome .....	1
Go kgaoletša ka lesome: Thutwana ya go thoma ya 1.....	4
Go kgaoletša ka lesome: Thutwana ya go thoma ya 2.....	7
Go kgaoletša ka lesome: Thutwana ya go thoma ya 3.....	9
Go kgaoletša ka lesome: Thutwana ya go thoma ya 4.....	10
Go kgaoletša ka lesome: Thutwana ya go thoma ya 5.....	14
Go kgaoletša ka lesome: Thutwana ya go thoma ya 6.....	17
Go kgaoletša ka lesome: Thutwana ya go thoma ya 7.....	19
Go kgaoletša ka lesome: Thutwana ya go thoma ya 8.....	22
 Mekgwa ya go taboga.....	26
Mekgwa ya go taboga: Thutwana ya go thoma ya 1 .....	29
Mekgwa ya go taboga: Thutwana ya go thoma ya 2 .....	31
Mekgwa ya go taboga: Thutwana ya go thoma ya 3 .....	34
Mekgwa ya go taboga: Thutwana ya go thoma ya 4 .....	35
Mekgwa ya go taboga: Thutwana ya go thoma ya 5 .....	40
Mekgwa ya go taboga: Thutwana ya go thoma ya 6 .....	41
Mekgwa ya go taboga: Thutwana ya go thoma ya 7 .....	44
Mekgwa ya go taboga: Thutwana ya go thoma ya 8 .....	48
 Pedifatšo le go ripagare.....	51
Pedifatšo le go ripagare: Thutwana ya go thoma ya 1 .....	54
Pedifatša le go ripagare: Thutwana ya go thoma ya 2 .....	57
Pedifatšo le go ripagare: Thutwana ya go thoma ya 3 .....	60
Pedifatšo le go ripagare: Thutwana ya go thoma ya 4 .....	62
Pedifatšo le go ripagare: Thutwana ya go thoma ya 5 .....	67
Pedifatšo le go ripagare: Thutwana ya go thoma ya 6 .....	69
Pedifatša le go ripagare: Thutwana ya go thoma ya 7 .....	70
Pedifatša le go ripagare: Thutwana ya go thoma ya 8 .....	75
 Go batametša kgauswi le go lokiša .....	78
Go batametša le go lokiša: Thutwana ya go thoma ya 1.....	81

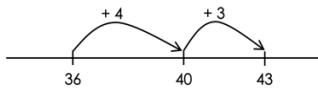
Go batametša le go lokiša: Thutwana ya go thoma ya 2.....	83
Go batametša le go lokiša: Thutwana ya go thoma ya 3.....	85
Go batametša le go lokiša: Thutwana ya go thoma ya 4.....	87
Go batametša le go lokiša: Thutwana ya go thoma ya 5.....	92
Go batametša le go lokiša: Thutwana ya go thoma ya 6.....	93
Go batametša le go lokiša: Thutwana ya go thoma ya 7.....	95
Go batametša le go lokiša: Thutwana ya go thoma ya 8.....	99
 Peakanyoleswa.....	103
Peakanyoleswa: Thutwana ya go thoma ya 1 .....	106
Peakanyoleswa: Thutwana ya go thoma ya 2 .....	109
Peakanyoleswa: Thutwana ya go thoma ya 3 .....	110
Peakanyoleswa: Thutwana ya go thoma ya 4 .....	113
Peakanyoleswa: Thutwana ya go thoma ya 5 .....	117
Peakanyoleswa: Thutwana ya go thoma ya 6 .....	118
Peakanyoleswa: Thutwana ya go thoma ya 7 .....	121
Peakanyoleswa: Thutwana ya go thoma ya 8 .....	125
 Go hlakantšha le go ntšha .....	128
Kgokaganyo ya go hlakantšha le go ntšha: Thutwana ya go thoma ya 1 .....	131
Kgokaganyo ya go hlakantšha le go ntšha: Thutwana ya go thoma ya 2 .....	134
Kgokaganyo ya go hlakantšha le go ntšha: Thutwana ya go thoma ya 3 .....	136
Kgokaganyo ya go hlakantšha le go ntšha: Thutwana ya go thoma ya 4 .....	139
Kgokaganyo ya go hlakantšha le go ntšha: Thutwana ya go thoma ya 5 .....	144
Kgokaganyo ya go hlakantšha le go ntšha: Thutwana ya go thoma ya 6 .....	146
Kgokaganyo ya go hlakantšha le go ntšha: Thutwana ya go thoma ya 7 .....	148
Kgokaganyo ya go hlakantšha le go ntšha : Thutwana ya go thoma ya 8 .....	152
 Memorantamo.....	156

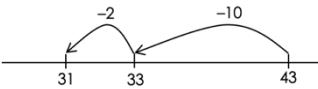
## MATSENO

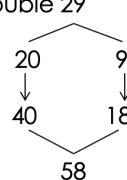
Puku ya Tlhahlo go Morutiši di na le **diyuniti tše 6 tša Dithutwana tša go Thoma tša Mmetse ka Hlogo** go barutwana ba Mphato wa 3. Mekgwa ya go fapano yapalo ao a nepišitšego go yuniti ye nngwe le ye nngwe. Maana a a palo a tšwa/tšeerwe go kharikhulamo. Yuniti ye nngwe le ye nngwe e akaretša sehlopha se se itšego sa kgokaganyo ya bokgoni.

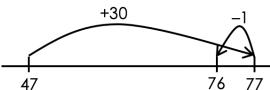
Maikemišetšo e le go tšea morutwana go tšwa thutong ya go balela ka menwana ya bona goba ka dithali letlakaleng. Go balela ka botee go tšea nako ebile go direga diphošo. Go napa go sa kgonagale ge dinomoro di golela godimo. Maano le Bokgoni di thekga kwešišego ye maatla ya dinomoro. Mekgwa ya tshela a palo le nako ye e beetšwego.

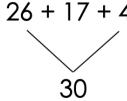
Diyuniti di akareditšwe go tšwa go mareo a mararo a mathomo ka tsela ye e latelago:

Kotara ya 1	Go kgaoletša ka lesome	$36 + 7 =$		= 43
-------------	------------------------	------------	--	------

Kotara ya 1	Mekgwa ya go taboga	$43 - 12 =$		= 31
-------------	---------------------	-------------	---	------

Kotara ya 2	Pedifatšo le go ripagare	$29 \text{ ga bedi} =$	double 29 	= 58
-------------	--------------------------	------------------------	---	------

Kotara ya 2	Go batametša le go Lokiša	$47 + 29 =$		= 76
-------------	---------------------------	-------------	--	------

Kotara ya 3	Peakanyoleswa	$26 + 17 + 4 =$		= 47
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Kotara ya 3	Kgokaganyo ya go hlakantšha le go ntšha	$\square - 30 = 9$	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>30</td><td>9</td></tr><tr><td> </td><td> </td></tr></table>	30	9			$30 + 9 = \square$
30	9							

## Mokgwa

Yuniti ye nngwe le ye nngwe e tsea dibeke tše tharo e latela mokgwa wo:



Yuniti ye nngwe le ye nngwe e thoma, e bile e feleletša ka molekwana wa barutwana. Go swaya molekwana go fa morutiši le barutwana tsebo ya gore bana ba gatetše pele ge go šomišwa mohuta wo wa kgaolo ka beke tše tharo

Go swaya diteko tše go abelana ka tshedimošo go wena le barutwana ka mokgwa woo ba kaonafetšego ka gona ba šomiša mabokgoni a a itšego ka dibeke tše tharo.

Ka go yuniti ye nngwe le ye nngwe, re lebišitše go mehuta e meraro ya palo:

- Go bala ka thelelo
  - Go arabalipalo ka **pela**
- Mekgwa ya go Balela
  - Go šomiša mekgwa ya makgonthe go arabalipalo
- Mekgwa ya go gopola
  - Go šomiša tswalano go arabalipalo

Go šomiša dithutwana tša go thoma ka go yuniti ye nngwe le ye nngwe le sehlopha sa barutwana e swanetše go lebiša go kaonafatšo ya mošomo wa barutwana go tšwa go melekwanaya pele ga thutwana go ya go melekwanaya ka morago ga dithutwana. Dikaonofatšo tše di bontšha Tšwelopele go bokgoni bja mmetse ka hlogo le kwešišo ya dinomoro.

### O ka šomiša bjang tlhahlo ye

Pukwana ye e na le melekwanaya le dithutwana tša go thoma go yuniti ye nngwe le ye nngwe. Dithutwana tša go thoma di diretšwe go lekana karolo ya **metsotso ye10** ya bomolomo le dipalo ka hlogo mathomong a thutwana ya gago ya Mmetse.

Thutwana ye nngwe le ye nngwe ya go thoma, e thoma ka **motsotso wo 1 wa go šidulla monagano** e lebeletšwe go bohlokwa bja go gopodiša thutwana yeo o nepišitše godimo ga yuniti. Barutwana ba swanetše go arabalipalo tše ka pela ka boitshepo.

**Tatelano ya mošongwana wa Thutwana ya go Thoma** go latela tšhidullo ya monagano. Telano ya mošongwana go thutwana ya go thoma ye nngwe le ye nngwe e hlaloša gore:

Thutwana ye nngwe le ye nngwe ya go thoma, e thoma ka motsotso wo 1 wa go šidulla Monagano go lebeletšwe

- **ka moo o swanetšego go ruta** mokgwa ka gona (go bontšhitšwe ka go la nngele) le
- **seo se ngwalwago** letlapeng (go bontšhitšwe ka go la go ja)

Ka morago ga thutwana ye nngwe le ye nngwe ya go thoma go na le **mešongwana ya barutwana** yeo ba swanetšego go e feleletša. Barutwana ba lokelwa ke go leka mesongwana ye ka hlogo ba šomisa mekgwa yao ba a rutilwego. **Botša barutwana gore ba se ke ba balela ka bo 1.** Ge barutwana ba swara bothata, ba kgopele gore ba bontšhe mešomo ya bona, mohl. godimo ga mothalopalo wo o se nago le dinomoro, goba go taekramo ya para. Dithalwa tša mothalopalo le taekramo di swanetše go ba tša “ka thoko” ka ge maikemišetšo e le gore ba fiwe thekgo ya mešomo ya monagano ka pela.

Kgopela barutwana gore ba hlaloše kgopololo tša bona go wena le barutwana ba bangwe. Se se tlo go dumelela go lekola gore na ba šomiša mokgwa woo ba rutilwego.

**Thekgo ka Dibidio:** Go lebana ga lenaneo la thutwana ya go thoma ye nngwe le ye nngwe go na le kgokaganyo ya bidio e kopana ya go bontšha ka moo mokgwa o šomago ka gona. O ka bula kgokaganyo ka:

- Go šupa khamera ya gago ya mogalathekeng go sekwere sa khoutu ya QR goba
- Go ngwala kgokaganyo ya youtube go lenaneo la dinyakišišo

Ka morago ga thutwana ya go thoma ya 4 le ya 7, go na le **matlakalatšhomo ao** barutwana ba ka a šomiša gae ba le noši.

**Memorantamo** wa molekwana wa pele le wa ka morago ga thutwana le matlakalatšhomo a filwe mafelelong a tlhahlo ye .

### Puku ya Kgatišo-kgolo ya Mongwalo

Go na le **KGATIŠO-KGOLO YA MONGWALO** ya ka thoko ye e nago le:

- melekwana ka moka ya pele le ya ka morago ga dithutwana
- matlakala a go šomela gae ka moka
- dithušathuto ka moka tše di gatišitšwego

## GO KGAOLETŠA KA LESOME

### Matseno

Go dithuto ka moka tše 4 tša mathomo, go lebeletšwe go hlakantšha ka go kgaoletša ka lesome. Dithutwana tše 4 tše di latelago go lebeletšwe go ntšha ka go kgaoletša ka lesome. Tše dingwe tša mešongwana ye mengwe ke ya go etwapele ke morutiši mola ye mengwe morutwana a itirela ka noši.

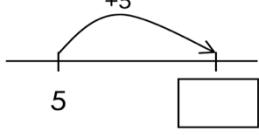
### Bokgoni bja go gopola ka pela

Go na le mabokgoni a tshela a go gopola ka pela ao baithuti ba swanetšego ke go ithuta go kgaoletša ka lesome:

- tswalano go 10 le palokatišanetšwa ya 10 (mohl.  $7 + \square = 10$ ;  $12 + \square = 20$ )
- go hlakantšha go palokatišanetšwa ya lesome (mohl.  $60 + 3 = 63$ )
- go ntšha go tšwa go palokatišanetšwa ya lesome (mohl.  $60 - 2 = 58$ )
- go tabogela go palokatišanetšwa ya lesome ya **go latela** ka morago ga nomoro (mohl.  $32 \rightarrow 40$ )
- go tabogela go palokatišanetšwa ya lesome **pele** ga nomoro (mohl.  $56 \rightarrow 50$ )
- go fetola peakanyo ya dipalo (mohl.  $7 + \square$  ke lesome?) Naa 7 hlakantšha le  $\square$  ke lesome?

Leina:

**Go Kgaoletša ka Lesome: Molekwana wa pele ga thutwana****SERIPA SA 1****Metsotso e 2 go letlakala le**

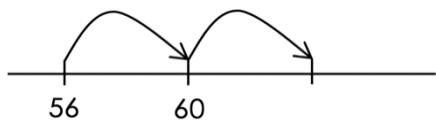
1.	$7 + 3 =$ <input type="text"/>	11.	$50 + 6 =$ <input type="text"/>								
2.	$2 + 8 =$ <input type="text"/>	12.	$3 + 60 =$ <input type="text"/>								
3.	$10 = 7 +$ <input type="text"/>	13.	$40 - 7 =$ <input type="text"/>								
Nomoro ye e fetwago ke 10 ka 8 ke		14.	$40 + 8 =$ <input type="text"/>								
4.	<input type="text"/>	5.	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>2</td><td></td><td></td><td></td></tr><tr><td colspan="4" style="text-align: center;">10</td></tr></table> Palokatišanetšwa ya 10 ya go latela ke eng?	2				10			
2											
10											
6.		16.	$100 + 27 =$ <input type="text"/>								
7.	$10 - 5 =$ <input type="text"/>	17.									
8.	$10 - 4 =$ <input type="text"/>	18.	<input type="text"/> + 7 = 50								
9.	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>1</td><td></td><td></td><td>9</td></tr><tr><td colspan="2"></td><td></td><td></td></tr></table>	1			9					19.	$30 -$ <input type="text"/> = 27
1			9								
10.	<input type="text"/> + 10 = 10	20.	$87 = 80 +$ <input type="text"/>								
Palomoka go 20											

**Go Kgaoletša ka Lesome: Molekwana wa pele ga thutwana**

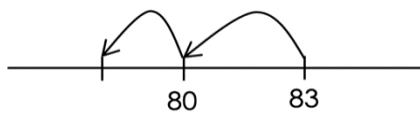
SERIPA SA 2

Metsotso e 3 go letlakala le

1.  $56 + 8 =$



2.  $83 - 4 =$



3.  $93 - 7 =$

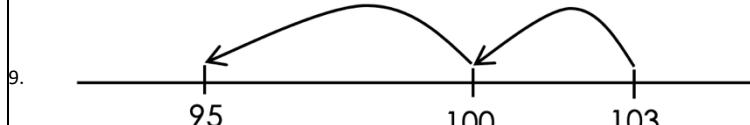
4.  $67 +$    $= 73$

5.   $+ 7 = 82$

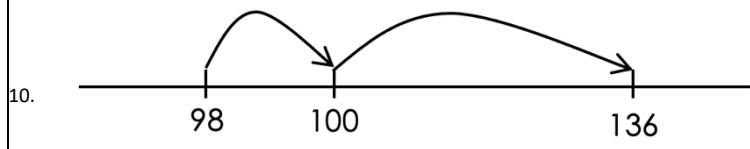
6.  $67 + 5 = 67 + 3 +$

7.  $94 -$    $= 94 - 4 - 2$

8.  $98 + 56 = 98 + 2 +$



$103 -$    $= 95$



$98 +$    $= 136$

Palomoka go 10

## GO KGAOLETŠA KA LESOME: THUTWANA YA GO THOMA YA 1

### Motsotso wo 1 wa go šidulla Monagano

Pop-Fizz

Morutiši o re 'pop' gomme barutwana ba re 'fizz'; bjale morutiši a bolela nomoro, gomme barutwana ba araba ka go tswalanya nomoro go bokgoni bja go gopola ka pela.

a. Pop-Fizz e /di dira 10

Ka gare ga phetolelo ye, barutwana ba swanetše go araba ka nomoro ye e tla dirago 10 ge di hlakane.

Morutiši: pop	→	Barutwana: fizz
Morutiši: 3	→	Barutwana: 7
Morutiši: pop	→	Barutwana: fizz
Morutiši: 6	→	Barutwana: 4      bjalo bjalo ...

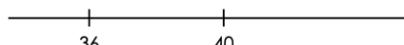
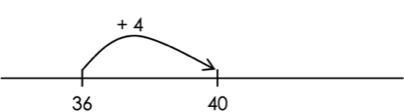
b. Pop-Fizz - Dira 20 (goba palokatišanetšwa ye nngwe ya 10)

Mo go phetolelo ye, barutwana ba swanetše go araba ka nomoro ye e tla dirago 20 ge di hlakane (goba palokatišanetšwa ye nngwe ya 10)

Morutiši: pop	→	Barutwana: fizz
Morutiši: 16	→	Barutwana: 4
Morutiši: pop	→	Barutwana: fizz
Morutiši: 11	→	Barutwana: 9      bjalo bjalo ...

### Tatelano ya mešongwana

Mo go thutwana ye, re šomiša mokgwa wa go kgaoletša ka lesome go palo ya go hlakantšha.

<p>Bothata: <math>36 + 7</math></p> <p>Ngwala '36 + 7 =' letlapeng.</p> <p>Thala mothalo gomme o swaye ntlha yeo e ngwadilwego '36'.</p> <p>Morutiši: Re a hlakantšha, bjale re swanetše go tabogela pele. Palokatišanetšwa ya lesome ka morago ga 36 ke eng?</p> <p>Morutwana o swanetše a tle a swaye '40' godimo ga mothalo.</p>	<p><math>36 + 7 =</math></p>  <p><math>36 + 7 =</math></p> 
<p>Morutiši: Re swanetše go taboga 7 go tšwa go 36. A re dire motabogo wo tee go ya go palokatišanetšwa ya lesome ya go latela, go na le gore re taboge ka bo 1. 36 o <input type="checkbox"/> hlakantšha le ke 40.</p> <p>Barutwana: 4</p>	

<p>Morutiši: Re hlakantšitše le 4. Re nyaka go hlakantšha le 7. 7 e aroganywa ka 4 le eng?</p> <p>Barutwana: 3</p> <p>Aroganya 7 go <math>36 + 7</math> ka 4 le 3.</p> <p>Morutiši: Naa go nyakega bokae gape gore re hlakantšhe?</p> <p>Barutwana: 3</p>	 
<p>Morutiši: 40 hlakantšha le 3 ke bokae?</p> <p>Barutwana: 43</p> <p>Morutiši: Bjale, <math>36 + 7 = 36 + 4 + 3 = 43</math></p>	

### Mešongwana ya morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$48 + 6 \qquad 63 + 8$$

Barutwana ba swanetše go hlapa seo ba se gopolago, mohl. "go  $48 + 6$ , ke hlakantšha 2 go  $48$  go hwetsa  $50$ , ka morago ga moo hlakantšha le 4, bjale karabo ke  $54$ "

Botša barutwana gore ba se ke ba balela ka bo 1.

Barutwana bao ba palelwago ke go dira se ka hlogo, ba ka thala mothalopalo go ba thuša.

### Thekgo ka Bidio

Kgaoletšo ka lesome 1



<https://youtu.be/iJNrdV3P4s>

**Thekgo ka Bidio**

Kgaoletšo ka lesome 2



<https://youtu.be/upvlvkC3Yko>

GO KGAOLETŠA KA LESOME: THUTO YA GO THOMA YA 2

**Motsotso wo 1 wa go šidulla monagano**

- a. Pop-Fizz: E dira 10 le/ goba e dira 20 (goba palokatišanetšwa ye nngwe ya lesome)
  - b. Go tabogela go palokatišanetšwa ya 10 ya go **latela** (mohl. 23 → 30; 56 → 60)

Ye ga se go batametša go lesome la kgauswi efela ke go tabogela go palokatišanetšwa ya lesome ya go **latela** godimo ga mothalopalo.

“Palokatišanetšwa ya lesome ya go **latela ka morago ke efe...**?”

Morutiši: 47 → Barutwana 50  
Morutiši: 32 → Barutwana 40 bjalo bjalo...

# Tatelano ya mešongwana

Mo go thutwana ye, re šomiša mokgwa wa go kgaoletša ka lesome go palo ya go hlakantšha.

<p>Kgopela barutwana go gopola thuto ya maabane: Naa re rarolotše 36 + 7 bjang?</p> <p>Thoma ka go thala mothalo le go swaya ntlha ya '36'.</p>	<p>Seswantšho seo se feleletšego sa mafelelo, se bontšhitšwe ka fase:</p>
<p>Morutiši: Re a hlakantšha, bjalo re nyaka go tabogela pele. Naa palokatišanetšwa ya lesome ka morago ga 36 ke eng?</p>	$36 + 7 = 43$
<p>Barutwana: 40</p> <p>Morutwana o swanetše a tle a swaye godimo ga mothalo.</p>	
<p>Dumelela barutwana go hlaloša mokgwa ka mo o šomago ka gona ba be ba go laetše letlapeng.</p>	
<p>Bjale, bontšha letlapeng gore o kgaoleditše bjang ka lesome go rarolla: 27 + 8</p> <p>Thoma ka go thala mothalo o swaye ntlha o ngwale '27' o be o rarolle marara o šomiša mokgwa wa go kgaoletša ka lesome.</p>	<p>Seswantšho seo se feleletšego sa mafelelo, se bontšhitšwe ka fase:</p>
	$27 + 8 = 35$

## **Mešongwana ya Morutwana**

Barutwana bjale ba swanetše go leka go dira mohlala wo o latelago ka *hlogo*: 42 + 9

Barutwana ba swanetše go hlaloša kgopolo ya bona, mohl. "go 42 + 9, ke hlakantšha 8 go 42 go hwetša 50, bjalo hlakantšha le 1 go ya go hwetša 51"

Botša barutwana gore ba se ke ba balela ka bo 1.

Barutwana bao ba palelwago ke go dira se ka hlogo, ba ka thala mothalopalo go ba thuša.

Thekgo ka Bidio

Kgaoletšo ka Lesome 3



<https://youtu.be/wDEEqU9B5Q>

## GO KGAOLETŠA KA LESOME: THUTO YA GO THOMA YA 3

### Motsotso wo 1 wa go šidulla Monagano

- a. Go tabogela go palokatišanetšwa ya lesome ya go latela ( mohl. 23 → 30; 56 → 60)
- b. Go hlakantšha go palokatišanetšwa ya lesome

“Ke eng...?“

$$\text{Morutiši: } 30 + 6 \rightarrow \text{Barutwana: } 36$$

$$\text{Morutiši: } 50 + 2 \rightarrow \text{Barutwana } 52$$

$$\text{Morutiši: } 70 + 5 \rightarrow \text{Barutwana } 75 \quad \text{bjalo bjalo...}$$

### Tatelano ya mešongwana

Mo go thutwana ye, re šomiša mokgwa ka go kgaoletša ka lesome go dipalo tša go hlakantšha.

<p>Bontšha letlapeng gore o kgaoletša bjang ka lesome go rarolla: <math>35 + 8</math></p> <p>Thoma ka go thala mothalo le go swaya khutlo ye e šupilego ‘35’</p> <p>Rarolla palorara ka go šomiša mekgwa ya go kgaoletša ka lesome</p>	<p>Seswantšho seo se feleletšego sa mafelelo, se bontšhitšwe ka fase:</p> $35 + 8 = 43$ $5 + 3 = 8$
--	---

### Mešongwana ya Morutwana

Barutwana ba swanetše gore ba leke mehlala ye e latelago ka *hlogo*:

$$44 + 8 \quad 39 + 7$$

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl. "go 44 + 8, ke hlakantšha 44 le 6 go hwetša 50, bjale hlakantšha le 2 go hwetša 52"

Botša barutwana gore ba se ke ba balela ka bo 1.

Efa bao ba fetšago ka pela mošomo wo mongwe:

$$43 + 8 \quad 67 + 6 \quad 84 + 7$$

## GO KGAOLETŠA KA LESOME: THUTO YA GO THOMA YA 4

### Motsotso wo 1 wa go šidulla Monagano

Tlema go 10: Mafokopalo go tšwa go taekramo ya para

Morutiši: Ye ke taekramo ya para e bile e bontšha gore 7 le 3 di dira 10.	Ngwala tše di latelago letlapeng:								
Morutiši: 7 o hlakantšha le <input type="text"/> ke 10?	<table border="1" style="width: 100px; margin-left: auto; margin-right: auto;"><tr><td>7</td><td>3</td></tr><tr><td colspan="2">10</td></tr></table>	7	3	10					
7	3								
10									
Barutwana: 3	Lokiša letlapa go dira mehlala ye:								
Morutiši: Bjale, 3 hlakantšha le <input type="text"/> ke 10?	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>2</td><td>8</td></tr><tr><td colspan="2">10</td></tr></table> <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>6</td><td>4</td></tr><tr><td colspan="2">10</td></tr></table>	2	8	10		6	4	10	
2	8								
10									
6	4								
10									
Barutwana 7									
Morutiši o šupa palo letlapeng gomme barutwana ba fa nomoro ye e tlogetšwego.	$2 + \square = 10$								
Tšwelapele ka go botšiša barutwana ka molomo, mehlala ye mengwe o šomiša ditlamo tša lesome.	$8 + \square = 10$								
$1 + \square$ ke 10? Bjale $9 + \square$ ke 10?	$\square + 4 = 10$								
$1 + \square$ ke 10? Bjale $9 + \square$ ke 10?	$4 + \square = 10$								
$2 + \square$ ke 10? Bjale $8 + \square$ ke 10?									
$6 + \square$ ke 10? Bjale $4 + \square$ ke 10?									

### Tatelano ya mešongwana

Mo go thutwana ye, re šomiša mokgwa wa go kgaoletša ka lesome go hwetša nomoro ye e tlogetšwego ka go palo ya go hlakantšha.

Šomisa go kgaoletša ka lesome go rarolla + <input type="text"/> = 42.	34 + <input type="text"/> = 42  34 + <input type="text"/> = 42 + <input type="text"/>  34 + <input type="text"/> = 42 + 6 + <input type="text"/>  34 + <input type="text"/> = 42 + 6 + <input type="text"/>
Thala mothlopalo wo o bontšhago '34' le '42'.	
Morutiši: Naa palokatišanetšwa ya lesome ka morago ga 34 ke eng?	
Barutwana: 40	
Swaya '40' godimo ga mothlopalo.	
Morutiši: 34 hlakantšha le <input type="text"/> ke 40?	
Barutwana: 6	
Ngwala '6' ka gare ga poloko ya ka godimo ga motabogo bjale ka ge e bontšhitšwe?	

Ge barutwana ba palelwa ke mohlala wo, ba botšiše, "4 +  $\square$  ke 10?

Barutwana ba swanetše go araba ka '6', ka gona ba bontšhe gore ye e swana le dipalokatišanetšwa tša lesome ka moka:

bjale:  $4 + 6 = 10$ ;  $14 + 6 = 20$ ;  $24 + 6 = 30$ ;  $34 + 6 = 40$ ...

Morutiši: 40 e hlakantšhitšwe le bokae go hwetša 42

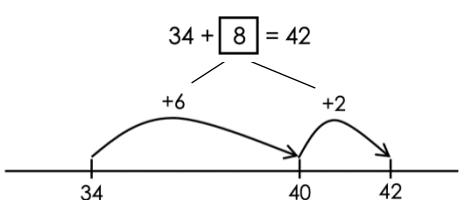
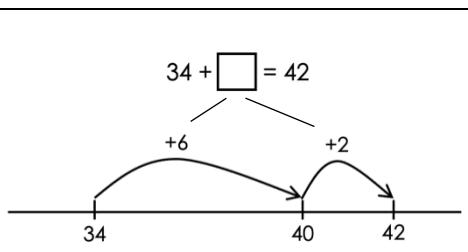
Barutwana: 2

Morutiši: Naa 6 hlakantšha le 2 ke bokae? (šupa go 6 le 2 godimo ga taekramo

Barutwana: 8

Morutiši: Bjale, ke bokae ye e hlakantšhitšwego le 34 go hwetša 42?

Barutwana: 8



### Mešongwana ya Morutwana

Barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*

$$28 + \square = 35 \quad 67 + \square = 72$$

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl. "go mohlala wa mathomo, palokatišanetšwa ya lesome ya go latela ke 30, bjale ke hlakantšha le 2 go hwetša 30 gomme bjale ke swanetše go hlakantšha le 5 go hwetša 35. 2 hlakantšha le 5 ke 7".

Botša barutwana go re ba se ke ba balela ka bo 1.

### Mošongwana wa gae: Letlakalatšhomo la 1

Mafelelong a thutwana ya lehono, efa barutwana Letlakalatšhomo la 1.

Ga se wa swanela go beela barutwana nako ge ba dira letlakalatšhomo le. Maikemišetšo ke go fa barutwana mešongwana ye mengwe ye ba e dirilego ka hlogo.

### Thekgo ka Bidio

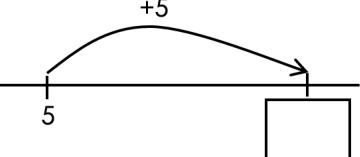
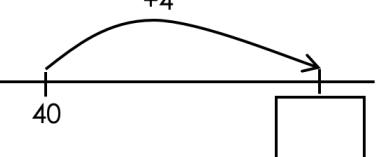
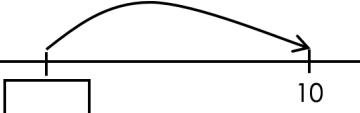
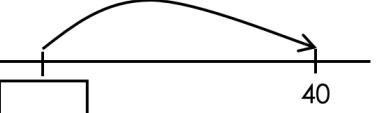
Kgaoletšo ka Lesome 4



<https://youtu.be/INITWPDMFKY>

Leina:

**Go kgaoletša ka Lesome: Letlakalatšomo la 1**

1. $6 + 4 =$ <input type="text"/>	13. $50 + 6 =$ <input type="text"/>																
2. $1 + 9 =$ <input type="text"/>	14. $50 + 4 =$ <input type="text"/>																
3. Nomoro ye e fetwago ke 10 ka 7 ke <input type="text"/>	15. Nomoro ye e fetwago ke 30 ka 8 ke <input type="text"/>																
4. $10 = 3 +$ <input type="text"/>	16. $20 = 19 +$ <input type="text"/>																
5. <table border="1"><tr><td>1</td><td></td><td><input type="text"/></td><td></td></tr><tr><td colspan="4">10</td></tr></table>	1		<input type="text"/>		10				17. <table border="1"><tr><td>4</td><td></td><td><input type="text"/></td><td></td></tr><tr><td colspan="4">30</td></tr></table>	4		<input type="text"/>		30			
1		<input type="text"/>															
10																	
4		<input type="text"/>															
30																	
6.  5 <input type="text"/>	18.  40 <input type="text"/>																
7. $10 - 5 =$ <input type="text"/>	19. $60 - 4 =$ <input type="text"/>																
8. $10 - 8 =$ <input type="text"/>	20. $60 - 7 =$ <input type="text"/>																
9. <table border="1"><tr><td>3</td><td>7</td></tr><tr><td></td><td><input type="text"/></td></tr></table>	3	7		<input type="text"/>	21. <table border="1"><tr><td>39</td><td>1</td></tr><tr><td><input type="text"/></td><td></td></tr></table>	39	1	<input type="text"/>									
3	7																
	<input type="text"/>																
39	1																
<input type="text"/>																	
10. <input type="text"/> + 4 = 10	22. <input type="text"/> + 3 = 23																
11. $8 +$ <input type="text"/> = 10	23. $30 +$ <input type="text"/> = 36																
12.  <input type="text"/> 10	24.  <input type="text"/> 40																

### **Dintlha tša morutiši**

Mo o ka ngwala dintlha mabapi le thutwana le gore na ke barutwana bafe bao ba nyakago thušo ka mekgwa ya kgaoletšo ya lesome. O ka dira dintlha tše dingwe tše o nyakago go di rarolla ka thutwana ya go thoma ye e latelago.

## GO KGAOLETŠA KA LESOME: THUTWANA YA GO THOMA YA 5

### Motsotso wo 1 wa go šidulla Monagano

a. Go tabogela go palokatišanetšwa ya lesome **pele**

Ye ga se go batametša go lesome la kgauswi efela go tabogela go palokatišanetšwa ya lesome pele, godimo ga mothalopalo.

“Mphe palokatišanetšwa ya lesome ye e tlagoo **pele ga...**”

$$\text{Morutiši: } 26 \rightarrow \text{Barutwana: } 20$$

$$\text{Morutiši: } 53 \rightarrow \text{Barutwana: } 50 \qquad \text{bjalo bjalo...}$$

b. Go ntšha go palokatišanetšwa ya lesome

“Ke eng ...?”

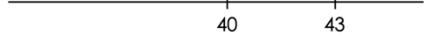
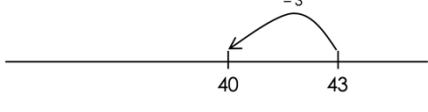
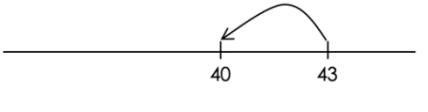
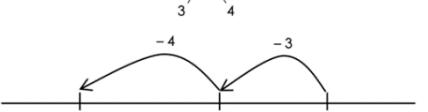
$$\text{Morutiši: } 30 - 6 \rightarrow \text{Barutwana: } 24$$

$$\text{Morutiši: } 50 - 2 \rightarrow \text{Barutwana: } 48$$

$$\text{Morutiši: } 70 - 5 \rightarrow \text{Barutwana: } 65 \qquad \text{bjalo bjalo...}$$

### Tatelano ya mešongwana

Mo go thutwana ye, re šomiša mokgwa wa go kgaoletša ka lesome go rarolla dipalo tša go ntšha.

<p>Bothata: <math>43 - 7</math>          Ngwala ‘<math>43 - 7 =</math>’ letlapeng.          Thala mothalo gomme o swaye ntlha yeo e ngwadilwego ‘43’.          Morutiši: Re a ntšha, bjale re nyaka go tabogela morago. Palokatišanetšwa ya lesome pele ga 43 ke eng?          Barutwana: 40          Morutwana o swanetše a tle a swaye mothalo.</p>	$43 - 7 =$ 
<p>Morutiši: Re swanetše go tabogela morago ka 7. A re dire motabogo wo tee go palokatišanetšwa ya lesome go e na le gore re balele morago ka bo 1. 43 ntšha <input type="checkbox"/> e refa 40?</p>	$43 - 7 =$ 
<p>Barutwana: 3          Morutiši: Re ntšhitše 3. Re swanetše re ntšhe šupa. 7 e aroganya ka 3 le eng?          Barutwana: 4          Aroganya 7 ka go <math>43 - 7</math> ka 3 le 4.          Morutiši: Naa go nyakega bokae gape gore re ntšhe,          Barutwana: 4</p>	$43 - 7 =$  $43 - 7 =$ 

Morutiši: 40 ntšha 4 go šala bokae? Barutwana: 36  Morutiši: Bjale, $43 - 7 = 43 - 3 - 4 = 36$ . Ngwala karabo godimo ga mothalopalo.	$43 - 7 = 36$

**Mešongwana ya Morutwana**

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$54 - 6 \qquad 63 - 5$$

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl: "go 54 – 6, ke ntšha 4 go tšwa go 50, bjale ntšha 2, karabo ke 48".

Botša barutwana gore ba se ke ba balela ka bo 1.

Barutwana bao ba palelwago ke go dira se ka hlogo, ba ka thala mothalopalo go ba thuša.

**Thekgo ka Bidio**

Kgaoletšo ka Lesome 5



<https://youtu.be/-bQNTOPly7I>

**Thekgo ka Bidio**

Kgaoletšo ka Lesome 6



<https://youtu.be/JvNKtAdrzfM>

## GO KGAOLETŠA KA LESOME: THUTWANA YA GO THOMA YA 6

### Motsotso wo 1 wa go šidulla Monagano

- Go tabogela go palokatišanetšwa ya lesome **pele** (e.g. 23 → 20; 56 → 50)
- Go ntšha go palokatišanetšwa ya lesome (e.g. 30 – 3 → 27; 40 – 6 → 34)

### Tatelano ya mošongwana

Mo go thutwana ye, re šomiša mokgwa wa go kgaoletša ka lesome go rarolla dipalo tša go ntšha.

<p>Kgopela barutwana gore ba leke go gopola tšeob a di dirilego maabane. Re rarolotše bjang 43 – 7?</p> <p>Thoma ka go thala mothalo gomme o swaye ntlha ye e ngwadilwego '43'.</p> <p>Dumelela barutwana go hlaloša mekgwa le ka moo e šomago ka gona, le go e bontšha latlapeng.</p>	<p>Seswantšho seo se feleletšego sa mafelelo, se bontšhitšwe ka fase:</p> $43 - 7 = 36$
<p>Bjalo, bontšha letlapeng gore o kgaoletša bjang ka lesome go rarolla: 27 – 8</p> <p>Thoma ka go thala mothalo o be o swaye ntlha ye e ngwadilwego '27' gomme o rarolle palorara o šomiša mokgwa wa go kgaoletša ka lesome.</p>	<p>Seswantšho seo se feleletšego sa mafelelo, se bontšhitšwe ka fase:</p> $27 - 8 = 19$

### Mošongwana wa Morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*: 35 – 7

Barutwana ba swanetše go hlaloša kgopoloy bona, mohl. "go 35 – 7, ke dirile 35 – 5 go hwetša 30 gomme ka ntšha 2 go hwetša 28".

Botša barutwana gore ba se ke ba balela ka bo 1.

Barutwana bao ba palelwago ke go dira se ka *hlogo*, ba ka thala mothalopalo go ba thuša.

Efa bao ba fetšago ka pela mešongwana ye mengwe:

42 – 8

62 – 6

84 – 7

**Thekgo ka Bidio**

Kgaoletšo ka Lesome 7



<https://youtu.be/npmpVwiXD4>

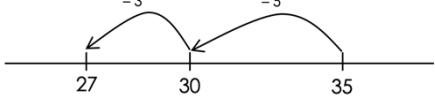
## GO KGAOLETŠA KA LESOME: THUTWANA YA GO THOMA YA 7

### Motsotso wo 1 wa go šidulla Monagano

- Go tabogela go palokatišanetšwa ya lesome **pele** (mohl. 23 → 20; 56 → 50)
- Go ntšha go palokatišanetšwa ya lesome (mohl. 30 – 3 → 27; 40 – 6 → 34)

### Tatelano ya mošongwana

Mo go thutwana ye re šomiša mokgwa wa go kgaoletša ka lesome go rarolla dipalo tša go ntšha.

Bontšha letlapeng gore o kgaoletša bjang ka lesome go rarolla palorara: 35 – 8	Seswantšho seo se feleletšego sa mafelelo, se bontšhitšwe ka fase:  $\begin{array}{c} 35 - 8 = 27 \\ \swarrow \quad \searrow \\ 5 \qquad 3 \end{array}$ 
Thoma ka go thala mothalo o be o swaye ntlha ye e ngwadilwego '35'. Rarolla palorara o šomiša mokgwa wa go kgaoletša ka lesome.	

### Mešongwana ya Morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$25 - 8 \qquad 36 - 7$$

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl. "go 25 – 8, ke dirile 25 – 5 go hwetša 20 bjale ntšha 3 go hwetša 17."

Botša barutwana gore ba se ke ba balela ka bo 1.

Barutwana bao ba palelwago ke go dira se ka hlogo, ba ka thala mothalopalo go ba thuša.

Efa bao ba fetšago ka pela mošomo wo mongwe:

$$73 - 6 \qquad 142 - 8 \qquad 81 - 4$$

### Mošongwana wa gae: Letlakalatšhomo la 2

Mafelelong a lenaneo la lehono efa barutwana letlakalatšhomo la 2

Ga se wa swanela go beela barutwana nako ge ba dira letlakalatšhomo le. Maikemišetšo ke go fa barutwana mešongwana ye mengwe ye ba e dirilego ka hlogo.

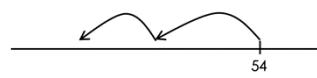
Leina:

**Go Kgaoletša ka Lesome: Letlakalatšhomo la 2**

1.  $45 + 8 = \boxed{\phantom{00}}$



2.  $54 - 6 = \boxed{\phantom{00}}$



3.  $26 + \boxed{\phantom{00}} = 34$

4.  $27 + \boxed{\phantom{00}} = 27 + 3 + 5$

5.  $32 + 9 = 32 + 8 + \boxed{\phantom{00}}$

6.  $67 + 6 = 67 + 3 + \boxed{\phantom{00}}$

7.  $44 + \boxed{\phantom{00}} = 44 + 6 + 23$

8.  $32 - \boxed{\phantom{00}} = 32 - 2 - 5$

9.  $97 + \boxed{\phantom{00}} + \boxed{\phantom{00}} = 144$

10.  $153 - \boxed{\phantom{00}} - \boxed{\phantom{00}} = 95$

### **Dintlha tša morutiši**

Mo o ka ngwala dintlha mabapi le thutwana le gore na ke barutwana bafe bao ba nyakago thušo ka mekgwa ya kgaoletšo ya lesome. O ka dira dintlha tše dingwe tše o nyakago go di rarolla ka thutwana ya go thoma ya go latela.

**GO KGAOLETŠA KA LESOME: THUTO YA GO THOMA YA 8****Motsotso wo 1 wa go šidulla monagano**

Tlemaganya le 10: Mafokopalo go tšwa go taekramo ya para

Morutiši: Ye ke taekramo ya para e bile e bontsha gore 7 le 3 di dira 10.

Re ka bona gape gore  $10 - 7 = 3$  re lebeletše go tšwa go taekramo.

Morutiši: Bjale 10 ntšha  $\square$  ke 3?

Barutwana: 7

Morutiši: ka gona, 10 ntšha  $\square$  ke 7?

Barutwana: 3

Morutiši o šupa palo e nngwe le e nngwe letlapeng gomme barutwana ba fa dinomoro tseo di tlogetswego.

Tšwelapele o botšiša barutwana, ka molomo, mehlala ye mengwe o šomiša ditlemaganyo tša lesome:

10 ntšha  $\square$  ke 1? 10 ntšha  $\square$  ke 9?

10 ntšha  $\square$  ke 2? 10 ntšha  $\square$  ke 8?

10 ntšha  $\square$  ke 4? 10 ntšha  $\square$  ke 6?

Ngwala tše di latelago letlapeng:

7	3
10	

Lokiša letlapa ka mehlala ye:

2	8	6	4
10		10	

$$10 - \square = 6$$

$$10 - \square = 4$$

$$10 - \square = 2$$

$$10 - \square = 8$$

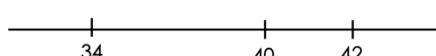
**Tatelano ya mošongwana**

Mo go thutwana ye, re šomiša mekgwa ya go kgaoletša ka lesome go hwetša nomoro ye e tlogetswego dipalo tša go ntšha.

Šomiša kgaoletšo ka lesome go rarolla  $42 - \square = 34$

$$42 - \square = 34$$

Thala mothlopalo wo o bontshago '42' and '34'.



Morutiši: Palokatišanetšwa ya lesome pele ga 42 ke eng?

Barutwana: 40

Swaya '40' godimo ga mothlopalo.

Morutiši: 42 ntšha  $\square$  ke 40?

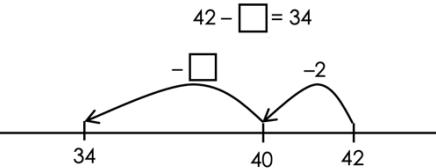
Barutwana: 2

Ngwala '2' ka gare ga poloko ya ka godimo ga motabogo.

Morutiši: Re tšea bokae go 40 go hwetša 34?

Barutwana: 6

Ge barutwana ba palelwa ke mohlala wo, ba botsise gore "10 ntšha  $\square$  ke 4?"



Barutwana ba swanetše go araba ka '6', ka gona ba bontšhe gore se se swana le dipalokatišanetšwa tša lesome ka moka;

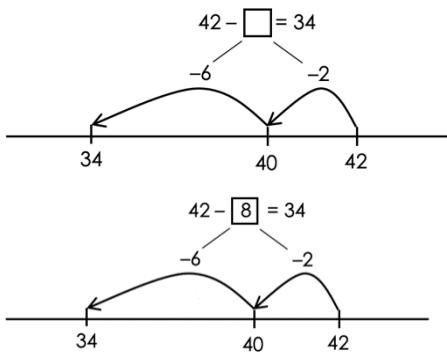
ka gona:  $10 - 6 = 4$ ;  $20 - 6 + 14$ ;  $30 - 6 = 24$ ;  $40 - 6 = 34$  bj.bj.

Morutiši: Naa 6 hlakantšha le 2 ke bokae? (šupa go 6 le 2 godimo ga taekramo)

Barutwana: 8

Morutiši: Ka gona, 42 ntšha  $\square$  ke 34?

Barutwana: 8



### Mešongwana ya Morutwana

Barutwana ba swanetše go leka mehlala ye e latelago ka hlogo:

$$35 - \square = 28 \quad 72 - \square = 67$$

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl."go  $35 - \square = 28$ , palokatišanetšwa ya lesome pele ga 35 ke 30, ka gona ke ntšha 2 go hwetša 28. 5 hlakantšha le 2 ke 7."

Botša barutwana go re ba se ke ba balela ka bo 1.

Barutwana bao ba palelwago ke go dira se ka hlogo, ba ka thala mothalopalo go ba thuša

### Thekgo ka Bidio

Kgaoletšo ka Lesome ya 8



<https://youtu.be/9YSl0ijDOso>

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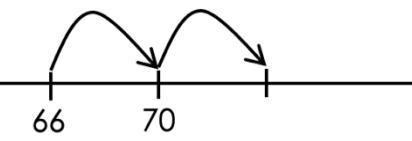
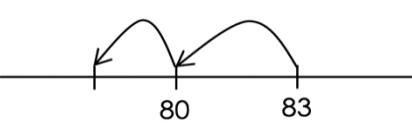
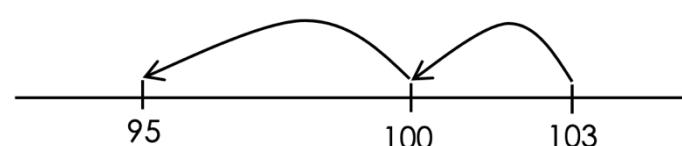
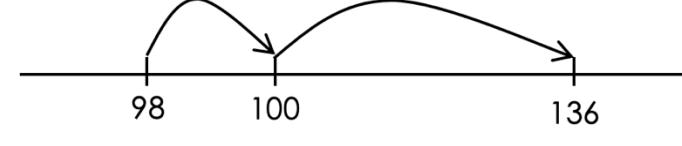
**Go Kgaoletša ka Lesome: Molekwana wa ka morago ga Thutwana****SERIPA SA 1****Metsotso e 2 go letlakala le**

1.	$6 + 4 =$ <input type="text"/>	11.	$50 + 7 =$ <input type="text"/>
2.	$2 + 8 =$ <input type="text"/>	12.	$3 + 60 =$ <input type="text"/>
3.	$10 = 7 +$ <input type="text"/>	13.	$40 - 7 =$ <input type="text"/>
4. Nomoro ye e fetwago ke 10 ka 8 ke <input type="text"/>		14.	$40 + 8 =$ <input type="text"/>
5.		15.	Palokatišanetšwa ya 10 ya go latela ke eng? 
6.		16.	$100 + 27 =$ <input type="text"/>
7.	$10 - 5 =$ <input type="text"/>	17.	Palokatišanetšwa ya 10 pele ga 34 ke eng? 
8.	$10 - 3 =$ <input type="text"/>	18.	<input type="text"/> + 8 = 50
9.		19.	$30 -$ <input type="text"/> = 27
10.	<input type="text"/> + 10 = 10	20.	$87 = 80 +$ <input type="text"/>
Palomoka go 20			

**Go Kgaoletša ka Lesome: Molekwana wa ka morago ga Thutwana**

SERIPA SA 2

Metsotso e 3 go letlakala le

1.	$66 + 8 =$ <input type="text"/>	
2.	$83 - 5 =$ <input type="text"/>	
3.	$93 - 7 =$ <input type="text"/>	
4.	$67 +$ <input type="text"/> $= 73$	
5.	<input type="text"/> $+ 7 = 82$	
6.	$67 + 5 = 67 + 3 +$ <input type="text"/>	
7.	$94 -$ <input type="text"/> $= 94 - 4 - 2$	
8.	$98 + 56 = 98 + 2 +$ <input type="text"/>	
9.		
	$103 -$ <input type="text"/> $= 95$	
10.		
	$98 +$ <input type="text"/> $= 136$	
Palomoka go 10		

## MEKGWA YA GO TABOGA

### Matseno

Go dithuto ka moka tše 4 tša mathomo, go lebeletšwe go hlakantšha ka go šomiša mekgwa ya go taboga. Dithutwana tše 4 tše di latelago, go lebeletšwe go go ntšha ka go šomiša mekgwa yago taboga. Ye mengwe ya mešongwana ke ya go etwapele ke morutiši mola ye mengwe morutwana a itirela ka noši.

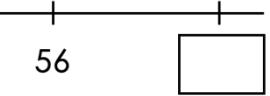
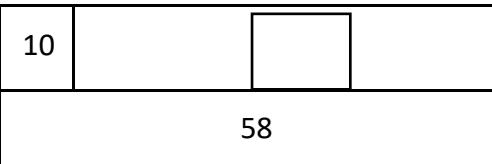
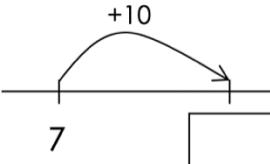
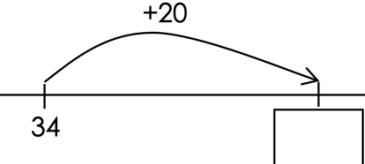
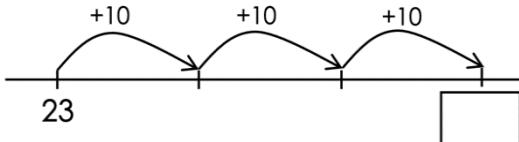
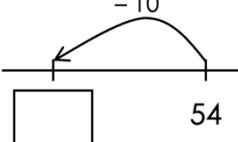
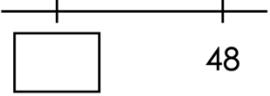
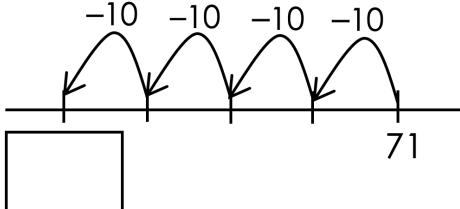
### Bokgoni bja go Gopola ka Pela

Gona le mabokgoni a tshela a go gopola ka pela ao baithuti ba swanetšego ke go ithuta mekgwa ya go taboga:

- Balela pele goba morago ka bo 10 go tšwa go nomoro ye efe goba efe (mohl. 12, 22, 32, goba 57, 47, 37, ...)
- hlakantšha goba ntšha 10 go tswa go nomoro efe goba efe (mohl.  $43 + 10 = 53$  goba  $89 - 10 = 79$ )
- hlakantšha palokatišanetšwa ya lesome go nomoro efe goba efe (mohl.  $61 + 20 = 81$ )
- ntšha palokatišanetšwa ya lesome go tšwa go nomoro efe goba efe (mohl.  $46 - 30 = 16$ )
- go tabogela go palokatišanetšwa ya lesome ya go latela ka morago ga nomoro (mohl.  $32 \rightarrow 40$ )
- go tabogela go palokatišanetšwa ya lesome pele ga nomoro (mohl.  $56 \rightarrow 50$ )

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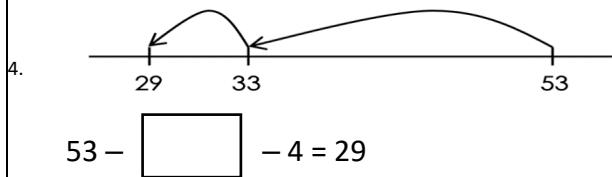
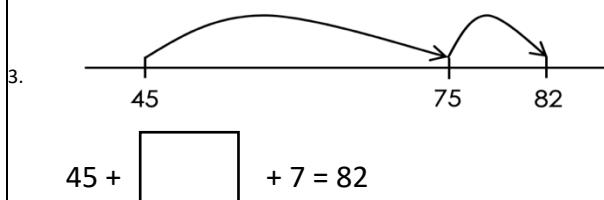
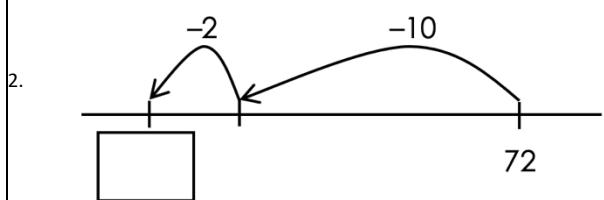
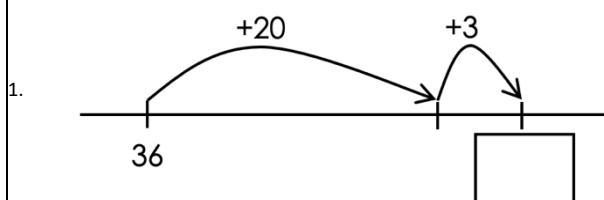
**Maano ya go Taboga: Molekwana wa pele ga Thutwana****SERIPA SA 1****Metsotso e 2 go letlakala le**

1.	Tlatša nomoro ye e tlogetšwego. 14, 24, 34, 44, <input type="text"/>	11. Palokatišanetšwa ya 10 ya go latela ke eng? 
2.	Tlatša nomoro ye e tlogetšwego. 79, 69, 59, 49, <input type="text"/>	
3.	$6 + 30 =$ <input type="text"/>	12. 
4.	$57 - 10 =$ <input type="text"/>	
5.		13. 
6.		14. $16 + 30 =$ <input type="text"/> Palokatišanetšwa ya 10 pele ga 48 ke eng?
7.		15. 
8.	$36 +$ <input type="text"/> $= 40$	16. $79 - 40 =$ <input type="text"/>
9.		17. $38 -$ <input type="text"/> $= 18$
10.	$31 - 20 =$ <input type="text"/>	18. <input type="text"/> $- 20 = 69$
Palomoka go 20		19. $37 +$ <input type="text"/> $= 77$
		20. <input type="text"/> $+ 20 = 66$

**Maano ya go Taboga: Molekwana wa pele ga Thutwana**

SERIPA SA 2

Metsotso e 3 go letlakala le



5.  $57 + 26 = \boxed{\quad}$

6.  $83 - 24 = \boxed{\quad}$

7.  $19 + \boxed{\quad} = 41$

8.  $62 - \boxed{\quad} = 47$

9.  $61 - 32 = 61 - \boxed{\quad} - 2$

10.  $74 - \boxed{\quad} = 74 - 20 - 5$

Palomoka go 10

## MEKGWA YA GO TABOGA: THUTWANA YA GO THOMA YA 1

### Motsotso wo 1 wa go šidulla Monagano

a. Dikologa phapoši go feta ga 10 (sehlopha sa barutwana ka moka se ka šielana ka go araba)

Morutiši o bolela nomoro gomme morutwana a araba ka go dikologa phapoši go feta nomoro ya mafelelo ka lesome.

Morutiši: 16

Morutwana 1: 26 → Morutwana 2: 36 → Morutwana 3: 46 → Morutwana 4: 56  
bjalo bjalo.

b. Dikologa phapoši ka fase ga 10 (sehlopha sa barutwana ka moka se ka šielana ka go araba)

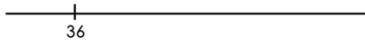
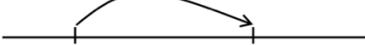
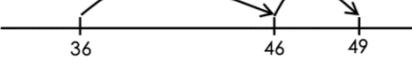
Morutiši o bolela nomoro gomme barutwana ba araba ka go dikologa phapoši ka lesome go ya fase.

Morutiši: 128

Morutwana 1: 118 → Morutwana 2: 108 → Morutwana 3: 98 → Morutwana 4: 88  
bjalo bjalo.

### Tatelano ya mošongwana

Mo go thutwana ye re tšweletša mekgwa ya go taboga go rarolla dipalorara tša go hlakantšha.

<p>Rarolla: <math>36 + 13</math>          Ngwala '36 + 13 =' letlapeng.          Ngwala 36 kgauswi le mathomong a mothalo (ka lebaka la gore go hlakantšha go ra gore re tabogela pele.</p>	$36 + 13 =$ 
<p>Morutiši: Re swanetše go tabogela pele ka 13. A re hlahlamolle ka 10 le 3. Naa <math>36 + 10</math> ke bokae?          Barutwana: 46          Thala motabogo wa +10, gomme e fihle go 46.</p>	$36 + 13 =$ $\begin{array}{ccc} & 10 & \\ \swarrow & & \searrow \\ 36 & & 46 \end{array}$ 
<p>Morutiši: Re sa swanetše ke go tabogela pele ka 3.          46 hlakantšha le 3 ke bokae?          Naa 46 hlakantšha le 3 ke bokae?          Barutwana: 49          Ngwala godimo ga mothalopalo bjalo ka ge e bontšhitšwe          Morutiši : Re latela magato a:  <ul style="list-style-type: none"> <li>• Re ngwala <b>swaya</b> nomoro ya mathomo</li> <li>• Re <b>hlahlamolla</b> nomoro ya bobedi yeo re hlakantšhago le yona</li> </ul> </p>	$36 + 13 = 49$ $\begin{array}{ccc} & 10 & \\ \swarrow & & \searrow \\ 36 & & 46 \end{array}$ $\begin{array}{ccc} & +3 & \\ & \searrow & \swarrow \\ 36 & & 49 \end{array}$  $36 + 10 + 3 = 49$

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Re <b>taboga</b> masome, ka morago ra taboga metšo</li> <li>• Re fa karabo</li> </ul> <p>Morutiši: Bjalo, <math>36 + 13 = 49</math><br/>         ka gore re hlakantšitše le 13 ka go hlakantšha le 10 pele, gomme ra hlakantšha le 3 ka morago.</p> <p>Ngwala mafokopalo bjalo ka ge a bontšhitšwe.</p> |  |
|--|--|

### Mešongwana ya morutwana

Bjale barutwana ba swanetše go leka go dira mehlala ye e latelago ka *hlogo*:

$$64 + 12 \quad 24 + 15$$

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl. “go 64 + 12, ke hlakantšha 10 go 64 go hwetša 74, bjale ke hlakantšha le 2, karabo ke 76”.

Botša barutwana gore ba se ke ba balela ka bo 1.

Barutwana bao ba palelwago ke go dira se ka hlogo, ba ka thala mothalopalo go ba thuša.

### Thekgo ka Bidio

Mekgwa ya go taboga1



<https://youtu.be/FPTVoIFFd3k>

## MEKGWA YA GO TABOGA: THUTWANA YA GO THOMA YA 2

### Motsotso wo 1 wa go šidulla Monagano

Pop Fizz: 10 go feta goba 10 ka fase

- a. Morutiši o re ‘pop’, barutwana ba re ‘fizz’; morutiši o bolela nomoro, barutwana ba fetola ka **10 go feta** (goba palokatišanetšwa ya 10 go feta)

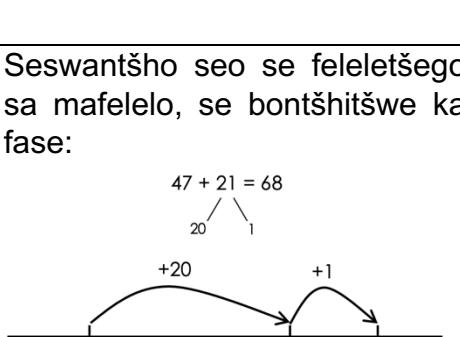
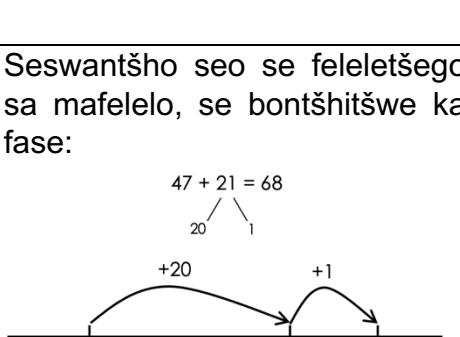
Morutiši: pop	→	Barutwana: fizz	
Morutiši: 3	→	Barutwana: 13	
Morutiši: pop	→	Barutwana: fizz	
Morutiši: 53	→	Barutwana: 63	bjalo bjalo...

- b. Morutiši o re ‘pop’, barutwana ba re ‘fizz’; morutiši o bolela nomoro, barutwana ba fetola ka nomoro ya ka fase ga **10** (goba palokatišanetšwa ya 10 ya ka fase)

Morutiši: pop	→	Barutwana: fizz	
Morutiši: 49	→	Barutwana: 39	
Morutiši: pop	→	Barutwana: fizz	
Morutiši: 78	→	Barutwana: 68	bjalo bjalo...

### Tatelano ya mošongwana

Mo go thutwana ye re šomiša mekgwa ya go taboga go rarolla dipalorara tša go hlakantšha.

<p>Kgopela barutwana go leka go gopola tše di dirilwego maabane: Re rarolotše bjang <math>36 + 13 = ?</math> Thoma ka go thala mothalo gomme o swaye ntlha ye e ngwadilwego ‘36’. Dumelela barutwana go hlaloša mokgwa go bao ba dutšego mmogo le bona, gomme o botšiše ba ba bedi bao ba dutšego mmogo go tla go bontšha mokgwa woo letlapeng. Gopotša barutwana ka dikgato tše ba ithutilego tšona peleng: <b>go swaya, go hlahlamolla , go taboga le go araba.</b></p>	<p>Seswantšho seo se feleletšego sa mafelelo, se bontšhitšwe ka fase:</p>  $47 + 21 = 68$ $\begin{array}{ccc} & 20 & \\ \swarrow & & \searrow \\ 47 & & 67 \end{array}$ $\begin{array}{ccc} & +20 & \\ & \curvearrowleft & \curvearrowright \\ 47 & & 67 \end{array}$ $\begin{array}{ccc} & +1 & \\ & \curvearrowleft & \curvearrowright \\ 67 & & 68 \end{array}$ $47 + 20 + 1 = 68$
<p>Bjalo,bontšha letlapeng gore o šomiša bjang mekgwa ya go taboga go rarolla: <math>47 + 21</math></p> <ul style="list-style-type: none"> <li>• <b>Swaya</b> 47 godimo ga mothalopalo</li> <li>• <b>Hlahlamolla</b> 21 ka 20 le1</li> <li>• <b>Tabogela pele</b> ka 20 gomme o tabogelete pele gape ka 1. Barutwana ba bangwe ba tla tabogela pele ka metabogo ye mebedi ya 10, gona le gore ba dire motabogo wa pele wo tee wa 20 - Se se lokile.</li> <li>• <b>Efa karabo.</b></li> </ul>	<p>Seswantšho seo se feleletšego sa mafelelo, se bontšhitšwe ka fase:</p>  $47 + 21 = 68$ $\begin{array}{ccc} & 20 & \\ \swarrow & & \searrow \\ 47 & & 67 \end{array}$ $\begin{array}{ccc} & +20 & \\ & \curvearrowleft & \curvearrowright \\ 47 & & 67 \end{array}$ $\begin{array}{ccc} & +1 & \\ & \curvearrowleft & \curvearrowright \\ 67 & & 68 \end{array}$ $47 + 20 + 1 = 68$

Morutiši: Ka gona/ bjale 47 + 21 e swana le 47 + 20 + 1 = 68	
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Ngwala lefokopalo bjale ka ge le bontšhitšwe.

### Mešongwana ya morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$43 + 24 \quad 31 + 25$$

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl. "go 43 + 24, ke hlakantšha 20 go hwetša 63, bjalo hlakantšha 4, ka gona karabo ke 67."

Botša barutwana gore ba se ke ba balela ka bo 1.

### Thekgo ka Bidio

Mekgwa ya go Taboga 2



<https://youtu.be/6RkP5bSpINQ>

**Thekgo ka Bidio**

Mekgwa ya go Taboga 3



<https://youtu.be/JAGey218ADw>

## MEKGWA YA GO TABOGA: THUTWANA YA GO THOMA YA 3

### Motsotso wo 1 wa go šidulla Monagano

Pop-Fizz: go feta ga 10 le ka fase ga 10; go feta ga 20 le ka fase ga 20

### Tatelano ya mešongwana

Mo go thutwana ye, re oketša mekgwa ya go taboga re akaretša dikgato tša go kgaoletša ka lesome..

<p>Bontšha letlapeng gore o šomiša bjang mekgwa ya go taboga go rarolla; <math>35 + 16</math></p> <p>Ngwala lefokopalo letlapeng o be o thale mothalopalo wa go se ngwalwe selo.</p> <ul style="list-style-type: none"> <li>• <b>Ngwala</b> 35 godimo ga mothalopalo on the number line.</li> <li>• <b>Hlahlamolla</b> 16 ka 10 le 6 the 16 into 10 and 6</li> <li>• <b>Tabogela pele</b> ka 10 go fihlelala 45. Taboga 6 ye e šetšego ka mokgwa wa go kgaoletša ka palokatišanetšwa ya 10 ya go latela (ye ke 50). Bjalo, re swanetše go hlahlamolla 6 ka 5 le 1. <b>Tabogela</b> pele ka 5 le 1</li> <li>• Efa karabo.</li> </ul> <p>Morutiši: Bjalo <math>35 + 16</math> e swana le <math>35 + 10 + 6 = 51</math> goba <math>35 + 10 + 5 + 1 = 51</math>.</p> <p>Ngwala lefokopalo bjalo ka ge le bontšhitšwe.</p>	<p>Seswantšho seo se feleletšego sa mafelelo, se bontšhitšwe ka fase:</p> <div style="text-align: center;"> <math display="block">35 + 16 = 51</math> <math display="block">35 + 10 + 6 = 51</math> <math display="block">35 + 10 + 5 + 1 = 51</math> </div>
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### Mešongwana ya morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$39 + 23 \qquad 68 + 35$$

Barutwana ba swanetše go hlaloša kgopolu ya bona, e.g. "mohl.  $39 + 23$ , ke hlakantšha 20 go 39 go hwetša 59, bjalo hlakantšha le 1 go fihla go 60, ka morago hlakantšha le 2, ka gona karabo ke 62"

Botša barutwana gore ba se ke ba balela ka bo 1

Efa bao ba fetšago ka pela mošomo wo mongwe:

$$36 + 28 \qquad 47 + 34$$

## MEKGWA YA GO TABOGA: THUTWANA YA GO THOMA YA 4

### Motsotso wo 1 wa go šidulla monagano

Go tabogela go palokatišanetšwa ya lesome ya go **latela**

Ye ga se go batametša kgauswi le lesome efela go tabogela go palokatišanetšwa ya lesome ya go latela godimo ga mothalopalo.

“Naa palokatišanetšwa ya lesome ya ka morago...?”

Morutiši: 47 → Barutwana: 50

Morutiši: 55 → Barutwana: 60

Morutiši: 32 → Barutwana: 40

bjalo bjalo...

### Tatelano ya mošongwana

Mo go thutwana ye, re šomiša mekgwa ya go taboga go rarolla dipalorara tša dinomoro tše di tlogetšwego.

Bontšha letlapeng gore na o šomiša bjang mekgwa ya go taboga go rarolla  $23 + \square = 37$  ka tsela ye e latelago:

Ngwala lefokopalo letlapeng o be o thale mothalopalo wa go hloka dinomoro.

Ngwala ‘23’ godimo ga mothalopalo.

Morutiši: Re swanetše go tabogela pele go 37.

Swaya 37 letlapeng.

Morutiši: Naa ke metabogo efe ya masome, le metabogo efe ya metšo yeo re swanetšego go e dira?

Barutwana: Taboga 10 go hwetša 33 o be o taboge 4 go hwetša 37.

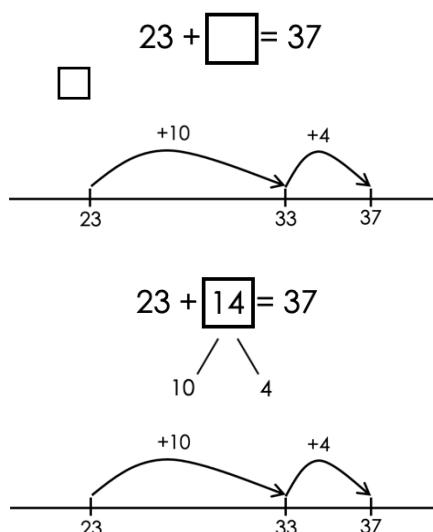
Thala metabogo ye godimo ga mothalopalo.

Morutiši: Naa re tabogile metabogo ye mekae ka moka?

barutwana: 14

Ngwala 14 ka gare ga poloko

Morutiši: Bjalo  $23 + 10 + 4$  e swana le  $23 + 14 = 37$ .



### Mešongwana ya morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$45 + \square = 67 \quad 67 + \square = 81$$

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl. “go  $45 + \square = 67$ , ke hlakantšha 20 go 45 go hwetša 65, bjalo hlakantsha le 2 go hwetsa 67, ka gona metabogo ka moka ke 22”

Botša barutwana gore ba se ke ba balela ka bo 1

Efa bao ba fetšago ka pela mošomo wo mongwe:

$$45 + \square = 68 \quad 67 + \square = 83$$

### **Mošongwana wa gae – Letlakalatšhomo la 1**

Mafelelong a thutwana ya lehono, efa barutwana Letlakalatšhomo la 1.

Ga se wa swanelo go beela barutwana nako ge ba dira letlakalatšhomo le. Maikemišetšo ke go fa barutwana mešongwana ye mengwe ye ba e dirilego ka hlogo.

### **Thekgo ka Bidio**

Mekgwa ya go taboga 4



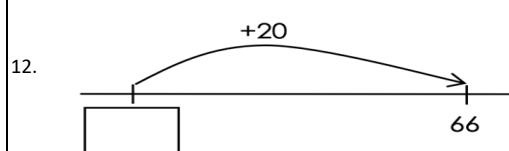
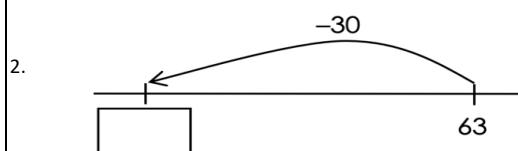
<https://youtu.be/A9vFXHWkzUo>

Leina:

**Maano a go taboga: Letlakalatšhomo la 1**

1.  $75 - 10 = \boxed{\phantom{00}}$

11.  $14 + 50 = \boxed{\phantom{00}}$



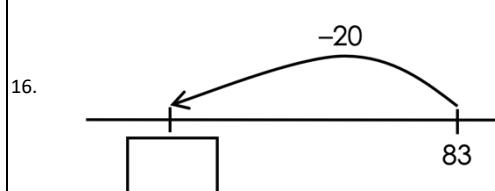
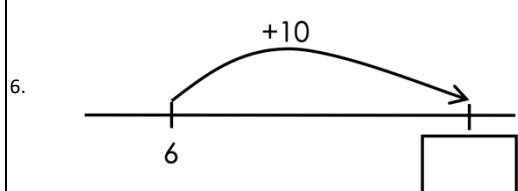
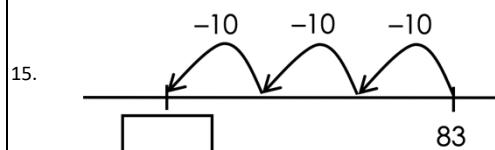
3.  $17 \quad 27 \quad 37 \quad \boxed{\phantom{00}} \quad 57$

13.  $86 \quad 76 \quad 66 \quad 56 \quad \boxed{\phantom{00}}$

4.  $47 + \boxed{\phantom{00}} = 50$

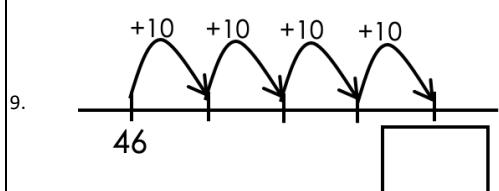
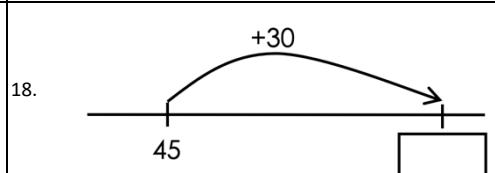
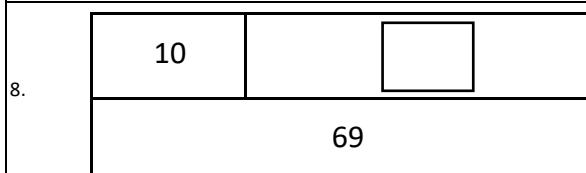
14.  $68 - \boxed{\phantom{00}} = 8$

5. Palokatišanetšwa ya 10 ya go latela ke eng?

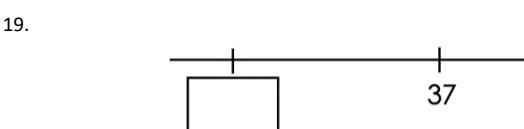


7.  $52 - 20 = \boxed{\phantom{00}}$

17.  $4 + 50 = \boxed{\phantom{00}}$



Palokatišanetšwa ya 10 pele ga 37 ke eng?



10.  $45 + \boxed{\phantom{00}} = 85$

20.  $97 - 60 = \boxed{\phantom{00}}$

### Dintlha tša Morutiši

Mo o ka ngwala dintlha mabapi le thutwana le gore naa ke barutwana bafe bao ba nyakago thušo ka mekgwa ya go fapanā. O ka dira dintlha tše dingwe tše o nyakago go di rarolla ka thutwana ya go thoma ya go latela.

**Thekgo ka Bidio**

Mekgwa ya go Taboga 5



<https://youtu.be/dFV5gmY68Sc>

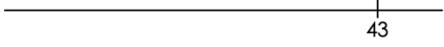
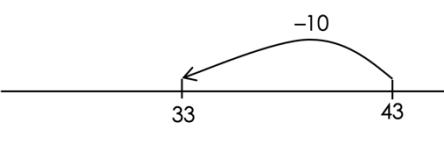
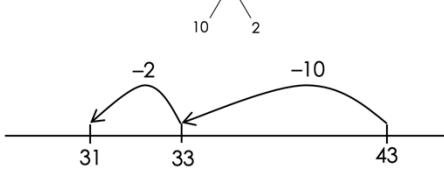
## MEKGWA YA GO TABOGA: THUTWANA YA GO THOMA YA 5

### Motsotso wo 1 wa go šidulla monagano

- Dikologa phaphoši ka go ya godimo ka 10
- Dikologa phaphoši ka go ya fase ka lesome.

### Tatelano ya Mešongwana

Mo go thutwana ye, re šomiša mekgwa ya go taboga go rarolla dipalo tša go ntšha.

<p>Rarolla: <math>43 - 12</math>          Ngwala '43 - 12 = 'letlapeng'.          Ngwala '43' go ya mafelelong a mothalo (ka lebaka la gore go ntšha go ra gore re tla be re tabogela morago)</p>	$43 - 12 =$ 
<p>Morutiši: Re swanetše re tabogele morago ka 12. Are hlahlamolle 12 ka 10 le 2. Naa <math>43 - 10</math> ke eng?          Barutwana: 33          Dira motabogo wa <math>-10</math>, o fologela go 33.</p>	$43 - 12 =$ 
<p>Morutisi: Re swanetše go tabogela morago ka bo 2.  <math>33</math> ntšha 2 ke bokae?          Barutwana: 31          Ngwala letlapeng bjalo ka ge e bontšhitšwe          Morutisi: Re ntšhitše 12 ka go ntšha 10 le 2.             <ul style="list-style-type: none"> <li>• Re ngwala nomoro ya pele</li> <li>• Re <b>hlahlamolla</b> nomoro ya bobedi</li> <li>• Re <b>taboga</b> masome ka morago ra taboga metšo (re tabogela morago ka lebaka la gore re a ntšha)</li> <li>• Re fa <b>karabo</b></li> </ul>         Morutiši: Bjalo, <math>43 - 12</math> e swana le <math>43 - 10 - 2 = 31</math>.          Ngwala lefokopalo bjalo ka ge le bontšhitšwe     </p>	$43 - 12 = 31$ 

### Mešongwana ya Morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$62 - 12 \quad 53 - 11$$

Barutwana ba swanetše go hlaloša kgopolu ya bona, mohl., "go  $62 - 12$ , ke ntšha 10 go  $62$  go hwetša  $52$ , bjale ntšha 2, karabo ke  $50$ ."

Botša barutwana gore ba se ke ba balela ka bo 1.

## MEKGWA YA GO TABOGA: THUTWANA YA GO THOMA YA 6

### Motsotso wo 1 wa go šidulla Monagano

- a. Hlakantšha le 10 (goba hlakantšha le palokatišanetšwa ya 10)

Mokgwa wo o swanago le wa '10' go feta, efela gona bjale morutiši o tliša palorara ya go hlakantšha le '10'.

$$\text{Morutiši: } 16 + 10 \rightarrow \text{Barutwana: } 26$$

$$\text{Morutiši: } 84 + 10 \rightarrow \text{Barutwana: } 94$$

$$\text{Morutiši: } 96 + 10 \rightarrow \text{Barutwana: } 106 \quad \text{bjalo bjalo...}$$

- b. Ntšha 10 goba ntšha palokatišanetšwa ya 10)

Mokgwa wo o swanago le wa ka fase ga '10', efela gona bjale morutiši o tliša palorara ya go ntšha '10'.

$$\text{Morutiši: } 56 - 10 \rightarrow \text{Barutwana: } 46$$

$$\text{Morutiši: } 84 - 10 \rightarrow \text{Barutwana: } 74$$

$$\text{Morutiši: } 95 - 10 \rightarrow \text{Barutwana: } 85 \quad \text{bjalo bjalo...}$$

### Tatelano ya Mesongwana

Mo go thutwana ye re šomiša mekgwa ya go taboga go rarolla dipalorara tša go hlakantšha.

<p>Kgopela barutwana go gopola thuto ya maabane. Naa re rarolotše bjang <math>43 - 12</math>?</p> <p>Dumelela barutwana go hlaloša mekgwa go bao ba dutšego mmogo le bona, o botšiše ba babedi bao ba dutšego mmogo gore ba e bontšhe letlapeng gopotša barutwana ka dikgato tšeob a ithutilego tšona pele: <b>dintlha, hlahlamolla, Taboga</b> (morago) le <b>karabo</b>.</p>	<p>Seswantšho seo se feleletšego sa mafelelo, se bontšhitšwe ka fase:</p> $43 - 12 = 31$
<p>Bontšha letlapeng gore o rarolla bjang: <math>57 - 24</math> Ngwala '57' godimo ga mothalopalo. Hlahlamolla 24 ka 20 le 4. Tabogela morago ka 20 o be o tabogele morago gape ka 4. Barutwana ba bangwe ba ka dira metabogo e mebedi ya morago ka 10 go na le gore ba dire motabogo wo tee wa morago ka 20 – se se lokile. Ngwala karabo. Morutiši: Bjalo 57 – 24 e swana le <math>57 - 20 - 4 = 33</math>. Ngwala lefokopalo bjalo ka ge le bontšhitšwe.</p>	<p>Seswantšho seo se feleletšego sa mafelelo, se bontšhitšwe ka fase:</p> $57 - 24 = 33$

## **Mešongwana ya Barutwana**

Barutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

95 – 23      43 – 22

Barutwana

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl, “go 95 – 23, ke ntšhitše 20 go tšwa go 95 go hwetša 75, bjale ntšha 3, ka fao karabo ke 72”

Botša barutwana gore ba se ke ba balela ka bo 1.

Barutwana bao ba palelwago ke go dira se ka hlogo, ba ka thala mothalopalo go ba thuša.

## **Thekgo ka Bidio**

Mekgwa ya go Taboga 6



<https://youtu.be/JQq2zL6pwCM>

**Thekgo ka Bidio**

Mekgwa ya go Taboga 7



<https://youtu.be/uFGzuToKGkA>

## **MEKGWA YA GO TABOGA: THUTWANA YA GO THOMA YA 7**

# Motsotso wo 1 wa go šidulla Monagano

Go tabogela go palokatišanetšwa ya 10 pele

Ye ga se go batametša go le lesome la kgauswi **la pele** efela go tabogela go palokatišanetšwa ya lesome ya go latela godimo ga mothalopalo

“Mphe palokatišanetšwa ya lesome yeo e tlago **pele**...”

Morutiši: 26 → Barutwana: 20

Morutiši: 53 → Barutwana: 50

bjalo bjalo...

## **Tatelano ya Mesongwana**

Mo go thutwana ye re oketša mekgwa ya go taboga go akaretša dikgato tša go kgaoletša ka lesome.

<p>Bontšha letlapeng gore o kgaoletša bjang ka lesome go rarolla: 62 – 17</p> <p>Swaya '62' godimo ga mothalopalo wa go hloka dinomoro.</p>	<p>Seswantšho seo se feleletšego sa mafelelo, se bontšhitšwe ka fase:</p>
<p>Hlahlamolla 17 ka 10 le 7.</p>	$62 - 17 = 45$
<p>Tabogela morago ka 10 go fihla go 52.</p>	
<p>Tabogela morago ka 7 ye e šetšego ka go kgaoletša ka palokatišanetšwa ya 10 pele (ke 50)</p>	
<p>Bjalo 7 e swanetšwe ke go hlahlamollwa ka 2 le 5.</p>	
<p>Taboga 2 le 5 morago.</p>	
<p>Ngwala karabo.</p>	
<p>Morutiši: Bjalo 62 – 17 e swana le :</p>	$62 - 10 - 7 = 45$
$62 - 10 - 2 - 5 = 45$	$62 - 10 - 2 - 5 = 45$

## **Mešongwana ya Barutwana**

Bjale barutwana ba swanetše go leka mehlala ye e latelaqo ka *hlogo*:

75 – 18      93 – 14

Barutwana ba swanetše go hlaloša kgopolo ya bona, mohl. "go 75 – 18, ke ntšha 10 go tswa go 75 go hwetša 65, ntšha 5 gape go hwetša 60, bjalo ntšha 3, karabo ke 57".

Botša barutwana gore ba se ke ba balela ka bo 1.

Efa bao ba fetšaqo ka pela mošomo wo mongwe:

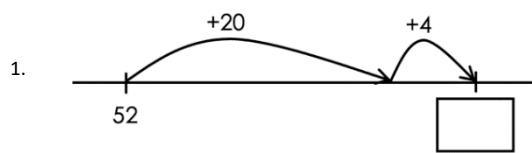
73 – 28      62 – 35

Mošongwana wa gae – Letlakalatšhomo la 2

Mafelelong a lenaneo la thutwana ya lehono, efa barutwana letlakalatshomo la 2.

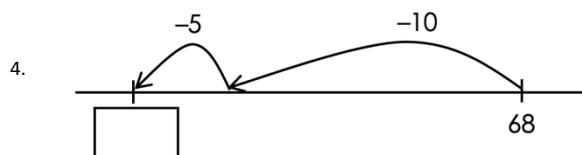
Ga se wa swanela go beela barutwana nako ge ba dira letlakalatshomo le. Maikemišetšo ke qo fa barutwana mešongwana ye mengwe ye ba e dirilego ka hlogo.

Leina:

**Maano a go Taboga: Letlakalatšhomo la 2**

2.  $45 + 8 = \boxed{\quad}$

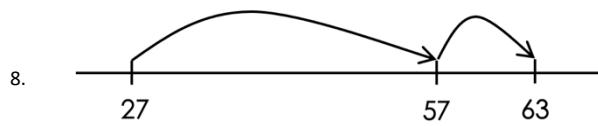
3.  $64 - 25 = \boxed{\quad}$



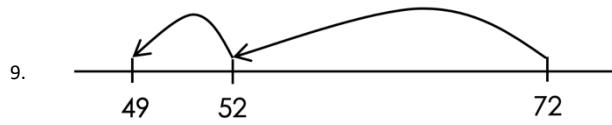
5.  $18 + \boxed{\quad} = 42$

6.  $73 - \boxed{\quad} = 58$

7.  $53 - 24 = 53 - \boxed{\quad} - 4$



$27 + \boxed{\quad} + 6 = 63$



$72 - \boxed{\quad} - 3 = 49$

10.  $86 - \boxed{\quad} = 86 - 20 - 9$

### Dintlha tša morutiši

Mo o ka ngwala dintlha mabapi le thutwana le gore naa ke barutwana bafe bao ba nyakago thušo ka mekgwa ya go fapanā. O ka dira dintlha tše dingwe tše o nyakago go di rarolla ka thutwana ya go thoma ya go latela

**Thekgo ka Bidio**

Mekgwa ya go taboga 8



<https://youtu.be/BHC9jDIUdRI>

**MEKGWA YA GO TABOGA: THUTWANA YA GO THOMA YA 8****Motsotso wo 1 wa go šidulla monagano**

a. Go tabogela go palokatišanetšwa ya 10 pele

b. Ntšha palokatišanetšwa ya 10

**Tatelano ya mešongwana**

Mo go thutwana ye re šomiša mekgwa ya go taboga go rarolla donomoro tšeо di tlogetšwego.

Rarolla:  $84 - \square = 61$

Swaya '84' godimo ga mothalopalo.

morutiši: Re swanetše tabogela morago go 61.

Swaya '61' godimo ga mothalopalo.

Morutiši: Re swanetše re dire metabogo efe ya masome le efe ya metšo?

Barutwana: Ntšha 20 o fihle go 64 o be o ntšhe 3 o fihle go 61.

Thala metabogo ye godimo ga mothalopalo.

Botšiša: Naa re tabogile bokae ka moka?

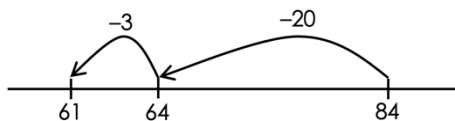
Barutwana: 23

Ngwala karabo ka gare ga poloko.

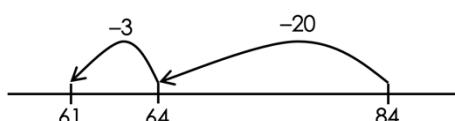
Morutiši: Bjalo  $84 - 20 - 3$  e swana le  $84 - 23 = 61$

ngwala lefokopalo bjalo ka ge le bontšhitšwe.

$$84 - \square = 61$$



$$84 - \boxed{23} = 61$$

**Mešongwana ya Morutwana**

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka hlogo:

$$75 - \square = 62 \quad 93 - \square = 69$$

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl. "go  $75 - \square = 62$ , ke ntšha 10 go hwetša 65, bjalo ntšha 3 go hwetša 62, ka gona metabogo ka moka ke 13."

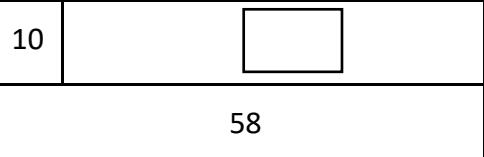
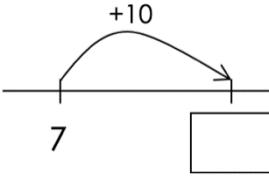
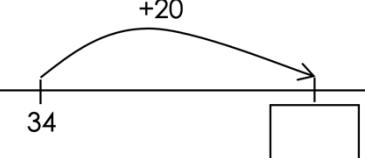
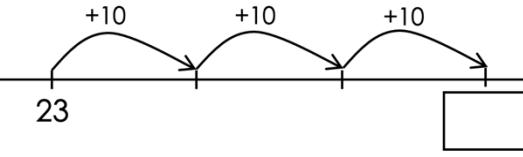
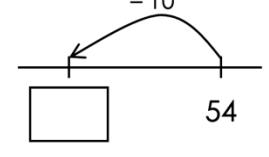
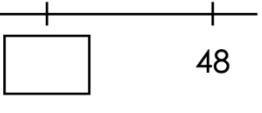
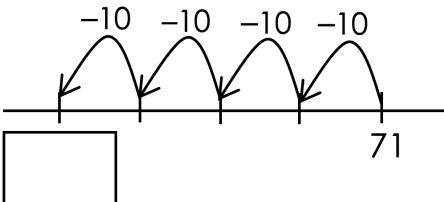
Botša barutwana gore ba se ke ba balela ka bo 1.

Efa bao ba fetšago ka pela mošomo wo mongwe:, ba fe mošomo wo montši go feta:

$$75 - \square = 63 \quad 94 - \square = 69$$

Leina:

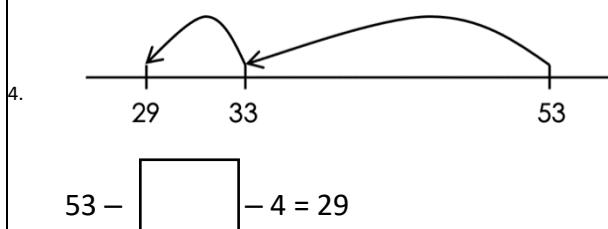
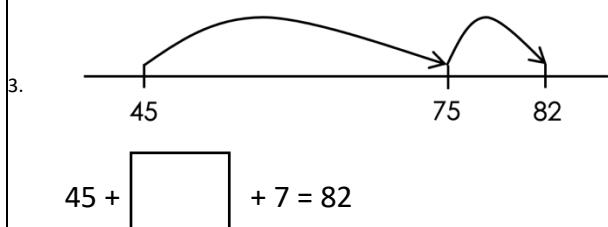
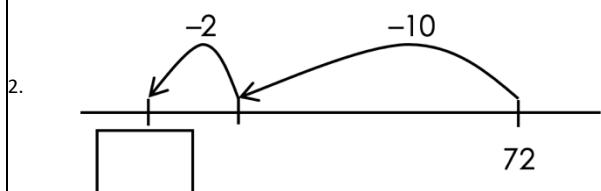
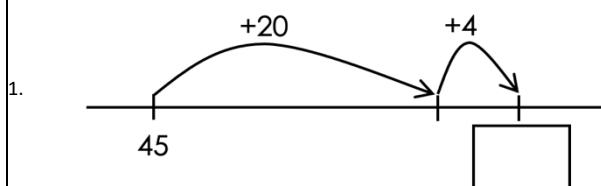
**Maano a go Fofa: Molekwana wa ka morago ga thutwana****SERIPA SA 1****Metsotso e 2 go letlakala le**

1. Tlatša nomoro ye e tlogetšwego. 12, 22, 32, 42, <input type="text"/>	Palokatišanetšwa ya 10 ya go latela ke eng?  11. 
2. Tlatša nomoro ye e tlogetšwego. 79, 69, 59, 49, <input type="text"/>	
3. $6 + 30 = \boxed{\quad}$	12. 
4. $57 - 10 = \boxed{\quad}$	
5. 	13. 
6. 	14. $16 + 30 = \boxed{\quad}$
7. 	15. Palokatišanetšwa ya 10 pele ga 48 ke eng?  16. 
8. $37 + \boxed{\quad} = 40$	17. $38 - \boxed{\quad} = 18$
9. 	18. $\boxed{\quad} - 20 = 64$
10. $31 - 20 = \boxed{\quad}$	19. $37 + \boxed{\quad} = 77$
Palomoka go 20	

**Maano a go Fofa: Molekwana wa ka morago ga Thutwana**

SERIPA SA 2

Metsots e 3 go letlakala le



5.  $57 + 26 = \boxed{\quad}$

6.  $83 - 24 = \boxed{\quad}$

7.  $19 + \boxed{\quad} = 41$

8.  $52 - \boxed{\quad} = 37$

9.  $61 - 32 = 61 - \boxed{\quad} - 2$

10.  $74 - \boxed{\quad} = 74 - 20 - 5$

Palomoka go 10

## **PEDIFATŠO LE GO RIPAGARE**

### **Matseno**

Go dithutwana ka moka tše tharo tša mathomo, go lebeletšwe bokgoni bja go gopola go pedifatša go fihla go pedifatšo ya 10 le go ripagare ga dinomoro tša palokatišanetšwa ya pedi go fihla go 20. Re kgokaganya kgopolole le leleme le boemedi bjo bogolo bja pedifatšo/go ripagare. Go dithutwana tša go thoma tše hlano tša go latela, go lebeletšwe go šomiša dintlha tše di gopotšwego go šoma go pedifatšo le go ripagare go dinomoro tše dikgolo ka hlogo. Mešongwana ye mengwe e etwa pele ke morutiši letlapeng mola ye mengwe morutwana a itirela ka noši.

### **Bokgoni bja go Gopola ka Pela**

Gona le mabokgoni a mararo a go gopola ka pela ao baithuti ba swanetšego ke go ithuta go pedifatša le go ripagare:

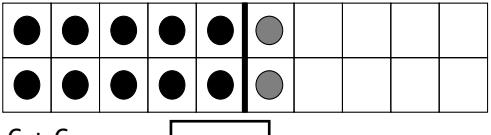
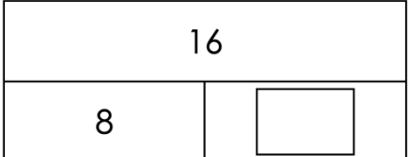
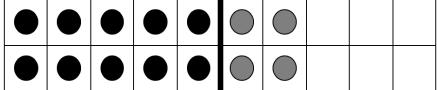
- pedifatšo go fihla go pedifatšo ya 10 (mohl. pedifatšo ya 4 ke 8 goba pedifatšo ya 7 ke 14);
- diripagare tša palokatišanetšwa ya 2 go fihla go 20 (mohl. seripagare sa 6 ke 3 goba seripagare sa 18 ke 9).
- pedifatšo le go ripagare ga dinomoro tša go tswalana (mohl. pedifatšo ya 30 ke 60 goba seripagare sa 50 ke 25 goba pedifatšo ya 200 ke 400).

Leina:

**Pedifatšo le go Ripagare: Molekwana wa pele ga Thutwana**

SERIPA SA 1

Metsotso e 2 go letlaka le

 1. $6 + 6 =$ <input type="text"/>	11. $15 + 15 =$ <input type="text"/>
2. seripagare sa 12 = <input type="text"/>	12. $7 \times 2 =$ <input type="text"/>
3. $9 + 9 =$ <input type="text"/>	13. seripagare sa <input type="text"/> = 7
4. pedifatša 8 = <input type="text"/>	14. pedifatša 100 = <input type="text"/>
5. <input type="text"/> $\times 2 = 12$	15. pedifatša 20 = <input type="text"/>
	16. seripagare sa <input type="text"/> = 40
7. pedifatša 10 = <input type="text"/>	17. seripagare sa 50 = <input type="text"/>
 8. seripagare sa 14 = <input type="text"/>	18. $16 \div 2 =$ <input type="text"/>
9. $10 \div 2 =$ <input type="text"/>	19. seripagare sa 30 = <input type="text"/>
10. seripagare sa 18 = <input type="text"/>	20. $2 \times 60 =$ <input type="text"/>
Palomoka go 20	

**Pedifatšo le go Ripagare: Molekwana wa pele ga Thutwana**

SERIPA SA 2

Metsots e 3 go letlakala le

1. pedifatša 42 =

2.  $36 \times 2 =$

3.  $64 \div 2 =$

4. seripagare sa 102 =

5. pedifatša 47 =

6. seripagare sa 38 =

7. seripagare sa  = 52

**Pedifatšo ya 39 ke 78**

8. seripagare sa 78 ke

9.  $39 + 38 =$

10. pedifatšo ya 39 =  $40 + 40 -$

Palomoka go 10

## PEDIFATŠO LE GO RIPAGARE: THUTWANA YA GO THOMA YA 1

### Motsotso wo 1 wa go šidulla monagano

‘Ke a bontšha, wena o re’ (mošomo wo o dirwago ke sehlopha ka moka, le barutwana ka bobedi)

a. Morutiši o bontšha nomoro ye e pedifaditšwego ka menwana ya diatla tše pedi, mohl.



Pedifatšo ya 3 ke 6. Bjale mpotše lefokopalo la ‘pedifatšo’ ya menwana ye ke e bontšhitšego .

Morutiši o bontšha: 4 ga bedi 1 ga bedi 3 ga bedi 5 ga bedi 2 ga bedi

Barutwana ba bolela lefoko la maleba,mohl. ” 4 ga bedi ke 8”

b. Barutwana bao ba šomago ka bobedi ba ka oketša mošomo go bontšha 6 ga bedi – 10 ga bedi ba šomiša menwana ya bona:

Morutiši: Barutwana ka bobedi, mpontšheng 6 ga bedi.



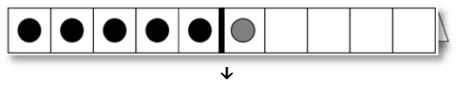
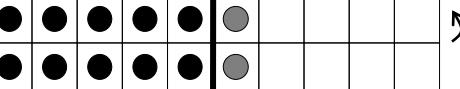
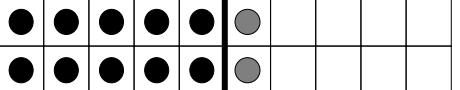
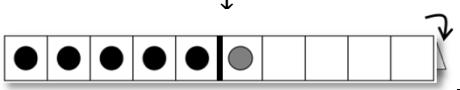
Barutwana ka bobedi:

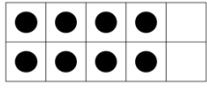
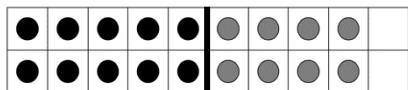
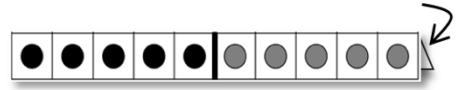
Morutiši: Naa ke menwana e mekae ya 6 gabedi ge e hlakane kamoka.

Kgopela barutwana ba bonagatše diatla tša bona di feleletše gape le diatla tše di emišitšego monwana o tee ba di bapetše. Thuša barutwana go bona gore karabo ya 12 e dirwa ke diatla tše pedi tša menwana ye 5 le diatla tše pedi tša monwana o tee:  $5 + 5$  le  $1 + 1$ .

### Tatelano ya mošongwana

Mo go thutwana ye, re šomiša dintlha tša pedifatšo le go ripagare go ya go 20.

<p>Palorara: pedifatša 6</p> <p>Bontšha marontho go seripagare se tee ka go karata ya go ba le marontho gabedi.</p> <p>Morutiši: Bjale ke na le tshela gabedi. Naa ke marontho a makae ge a hlakane?</p> <p>Barutwana: 12</p> <p>Morutiši: Naa o a tseba gore 6 gabedi ke 12?</p> <p>Theeletša barutwana bao ba rego karata ya marontho gabedi e bontšha ‘6 le 6’, ‘dihlopha tše pedi tša 6’, ‘pedi ga 6’, ‘6 x 2’.</p>	  <p>Pedifatšo ya <math>6 = 12</math></p> <p>dihlopha tše pedi tša tshela ke 12</p> <p>pedi ga 6 ke 12</p> <p><math>6 \times 2 = 12</math></p>
<p>Rarolla: seripagare sa 12</p> <p>Bontšha marontho a lesomepedi go karata ya go ba le marontho gabedi. Phutha karata ka seripagare sa botelele.</p>	 

<p>Morutiši: Bjale ke bona seripagare sa marontho a 12 e bile o ka bona seripagare. Bjale seripagare sa 12 ke eng?</p> <p>Barutwana: 6</p> <p>Morutiši: O tseba bjang gore karabo ke 6?</p> <p>Theeletša barutwana bao ba fago dihlalošo bjalo ka: 'seripagare sa 12 ke 6' goba 'lesomepedi le arotšwe ka ka diripa tše pedi ke 6' goba lesomepedi le abilwe magareng ga pedi ke tshela' goba '<math>12 \div 2 = 6</math>'. Ge e le gore ga ba fe dikarabo tša go swana le tše, hlohleletša barutwana go boeletša mafoko a ka morago ga gago.</p> <p>Ngwala phetolelo tše pedi tša go fapana letlapeng.</p>	<p>Seripagare sa 12 ke 6</p> <p>Lesomepedi le arolwa ka diripa tše 2 tša go lekana ke 6.</p> <p>Lesomepedi le abaganywa magareng a 2 ke 6.</p> <p><math>12 \div 2 = 6</math></p> <p>(Mehlala ye e swanetše go šala e ngwadilwe godimo ga letlape.)</p>
<p>Boeletša ka: Pedifatša 4 o be o pedifatše dikarata tša marontho.</p> <p>Karata ya marontho a pedifatšo ya 4 le pedifat pedifatšo ya 9</p> <p style="text-align: center;">Karata ya marontho a seripagare sa 8 le seripagare sa 20</p> <p>Kgopela sehlopha sa barutwana go bolela mafoko a go fapana go bapetša karata ye nngwe le ye nngwe ya marontho ya pedifatšo le ya go ripagare.</p> <p>Hlohleletša barutwana go bona bo hlano (marontho a matsho) godimo ga karata ya marontho le go šomiša se, go hwetša nomoro ya marontho ka pela. Bjale 9 gabedi re ka bona bo 5 ba babedi bjale ka 10 le bo 4 ba babedi go swana le 8, bjale 9 ga bedi ke 18.</p>	 <p>Pedifatša 4 le seripagare sa 8</p>  <p>Pedifatša 9</p>  <p>Seripagare sa 20</p>

### Mešongwana ya barutwana

Barutwana ba swanetše go leka letlakala leo le filwego la mošongwana wa bona wa thutwana ya go thoma ya 1. Barutwana ba swanetše go feleletša mafoko, ba be ba ngwale mafoko ka fase ga seswantšho se sengwe le se sengwe sa dikarata tša marontho godimo ga letlakalatšomo.

### Thekgo ya Bidio

Pedifatša le go Ripagare 1



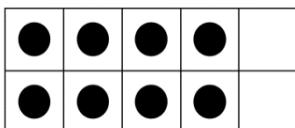
<https://youtu.be/UMmzMVM-SS0>

Leina:

**Thutwana ya go Thoma ya Pedifatšo le go Ripagare: Mošongwana wa morutwana**

Feleletša lefoko goba ngwala mafoko ka seswantšho se sengwe le se sengwe.

1. Pedifatša 4



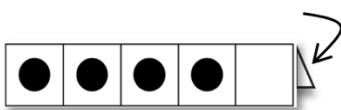
Pedifatša ya  ke

Dihlopha tše pedi tša  ke

Pedi ga  ke

x 2 =

2. Seripagare sa 8



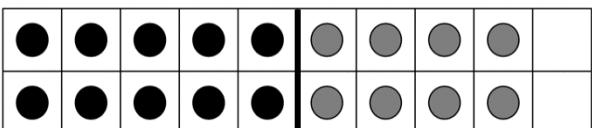
Seripagare sa  ke

8 arola ka 2 ke

8 e abilwe ka 2 ke

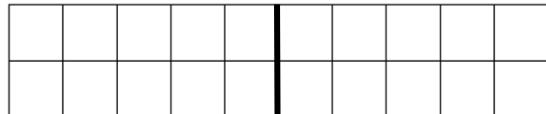
÷ 2 =

3. Peifatša 9

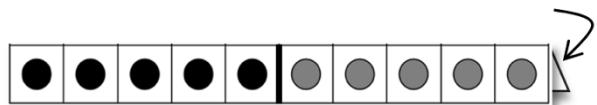


5. Pedifatša

Thala marontho a nomoro ya gago:

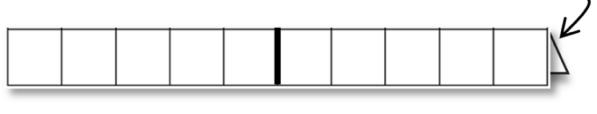


4. Seripagare sa 20



6. Seripagare sa

Thala marontho a nomoro ya gago:



## PEDIFATŠA LE GO RIPAGARE: THUTWANA YA GO THOMA YA 2

### Motsotso wo 1 wa go šidulla monagano

Pop-Fizz pedifatšo le go diripagare go lesome

a. Morutiši o re ‘pop’, barutwana ba re ‘fizz’; morutiši o bolela nomoro, barutwana ba araba ka **pedifatšo** ya dinomoro (goba palokatišanetšwa ya 10 go feta):

Morutiši: pop	→	Barutwana: fizz	
Morutiši: 1	→	Barutwana: 2	
Morutiši: pop	→	Barutwana: fizz	
Morutiši: 5	→	Barutwana: 10	bjalo bjalo...

Pedifatšo go 10: 1 – 2; 3 – 6; 5 – 10; 4 – 8; 2 – 4.

b. Morutiši o re ‘pop’, barutwana ba re ‘fizz’; Morutiši o bolela nomoro, barutwana ba araba ka **diripagare** ( goba palokatišanetšwa ya 10 ka fase):

Morutiši: pop	→	Barutwana : fizz	
Morutiši: 8	→	Barutwana: 4	
Morutiši: pop	→	Barutwana: fizz	
Morutiši: 6	→	Barutwana: 3	bjalo bjalo...

Seripagare go 10: 10 – 5; 6 – 3; 4 – 2; 8 – 4; 2 – 1

### Mešongwana ya barutwana

Mo go thutwana re itlwaetša dintlha tša go pedifatša le go ripagare go fihla go 20.

*Ela hloko: Dikarata tša marontho a pedifatšo di gona go puku ya Kgatišo Kgolo ya Mongwalo.*

Rarolla: Kgokaganya 8 ga bedi =  seripagare sa 16  
=

Šomiša karata ya marontho a pedifatšo ya 8. Phutha karata go bontšha sehlopha se tee sa 8. Bjale bula gore o bontšhe dihlopha ka moka tša 8.

Morutiši: Bjale 8 ga bedi ke bokae?

Barutwana: 16

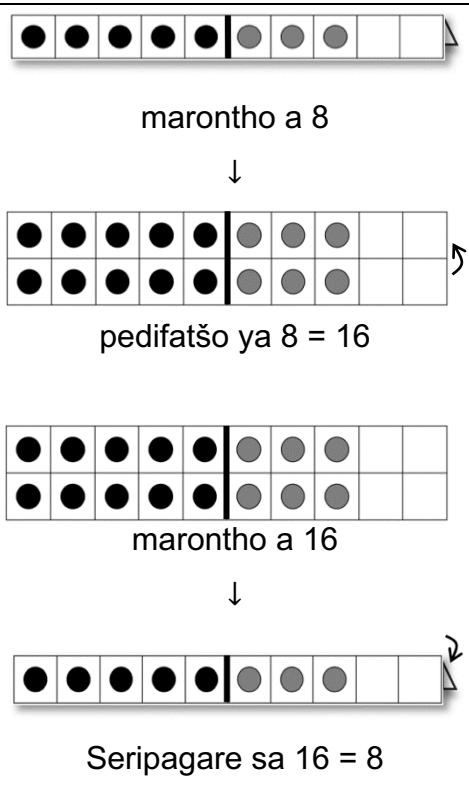
Ngwala ‘pedifatšo ya 8 = 16’ letlapeng.

Morutiši: Bjale seripagare sa 16 ke eng? (Phutha karata ge o dutše o bolela se, go bontšha gore o ripa bjang ka go dira dihlopha tše pedi tša go lekana.

Barutwana: 8

Ngwala ‘seripagare’ sa 16 = 8’ ka fase ga lefokopedi letlapeng.

Mehlala ye e swanetše go šala letlapeng ka moka.



### **Mešongwana ya Morutwana**

Bea dikarata tša pedifatšo ya 5, pedifatšo ya 7 le pedifatšo ya 9 letlapeng. Barutwana ba swanetše go ngwala mafokopalo a pedifatšo le a go ripagare a dikarata.

Barutwana ba swanetše go hlohlleletšwa go hlaloša kgopolu ya bona.

Botša barutwana gore ba se ke ba balela ka bo 1.

Ge barutwana ba bangwe ba feditše mošongwana wo ka pela, ba kgopele gore ba ngwale mafokopalo a dikarata tša marontho tše dingwe.

### **Thekgo ya Bidio**

Pedifatšo le go Ripagare 2



<https://youtu.be/8q1unCfK1Lo>

**Thekgo ka Bidio**

Pedifatšo le go Ripagare 3



[https://youtu.be/L2\\_MyczJOyU](https://youtu.be/L2_MyczJOyU)

## **PEDIFATŠO LE GO RIPAGARE:THUTWANA YA GO THOMA YA 3**

### **Motsotso wo 1 wa go šidulla Monagano**

Pop-Fizz pedifatšo le go ripagare go masomepedi

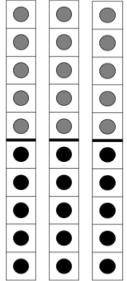
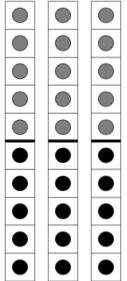
Pedifatšo go 20: 1 – 2; 3 – 6; 5 – 10; 4 – 8; 2 – 4; 6 – 12; 9 – 18; 7 – 14; 8 – 16; 10 – 20.

Seripagare go 20: 10 – 5; 6 – 3; 4 – 2; 8 – 4; 2 – 1; 12 – 6; 18 – 9; 14 – 7; 16 – 8; 20 – 10.

### **Tatelano ya mešongwana**

Mo go thutwana ye re itlwaetša pedifatšo ya dipalokatišanetšwa tša lesome.

*Ela hloko: Matlakala a matelele a masese a marontho a gona ka gare ga puku ya Kgatišo Kgolo ya mongwalo.*

<p>Rarolla : Kgokaganya pedifatšo ya 3 = <input type="text"/> ; pedifatšo ya 30 = <input type="text"/></p> <p>Šomiša matlakala a tshela a matelele a masese a marontho a 10 gomme o a beakanye gore a bontšhe pedifatšo ya 30</p> <p>Morutiši: Re tseba pedifatšo ya 3 = 6, bjale pedifatšo ya 30 ke eng?</p> <p>Barutwana: 60</p> <p>Morutiši: Pedifatšo ya 30 ke 60, bjale seripagare sa 60 ke eng?</p> <p>Barutwana: 30</p> <p>Ngwala lefokopalo bjalo ka ge le bontšhitšwe, gomme o šupe gore 6 le 60 di a kgokagana bjalo ka 3 le 30. Botša barutwana gore ba gopole pedifatšo le seripagare di a kgokagana.</p> <p>Morutiši: Re ka šomiša matlakala a matelele a masese go emela 10 go na le gore re bontšhe marontho a lesome nako ka moka.</p> <p>Bontšha barutwana gore masome a ka bontšhwabjjang o šomiša methalo ye metelele ye mesese yeo o e thalago letlapeng.</p>	<p><b>Pedifatšo ya 3 = 6</b></p>  <p><b>Pedifatšo ya 30 = 60</b></p>  <p><b>Seripagare sa 60 = 30</b></p>  
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### **Mešongwana ya barutwana**

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hloko*:

Pedifatšo ya 2

Pedifatšo ya 5

Pedifatšo ya 7

Pedifatšo ya 20

Pedifatšo ya 50

Pedifatšo ya 70

Botša barutwana gore ba se ke ba balela ka bo 1.

Ba swanetše ba šomiše kgokaganyo yeo ba ithutilego yona go ngwala pedifatšo ya dinomoro tše dikgolo ka pela.

Efa bao ba fetšago ka pela mošomo wo mongwe:

Pedifatšo ya 3	Pedifatšo ya 8	Seripagare sa 4	Seripagare sa 8
Pedifatšo ya 30	Pedifatšo ya 80	Seripagare sa 40	Seripagare sa 80

## PEDIFATŠO LE GO RIPAGARE: THUTWANA YA GO THOMA YA 4

### Motsotso wo 1 wa go šidulla monagano

Go pedifatša le go ripagare go dinomoro tša go tswalana

Dinomoro tša go tswalana ke dinomoro tše di le go bonolo go šoma ka tšona. Gantši ke dinomoro tša palokatišanetšwa ya lesome.

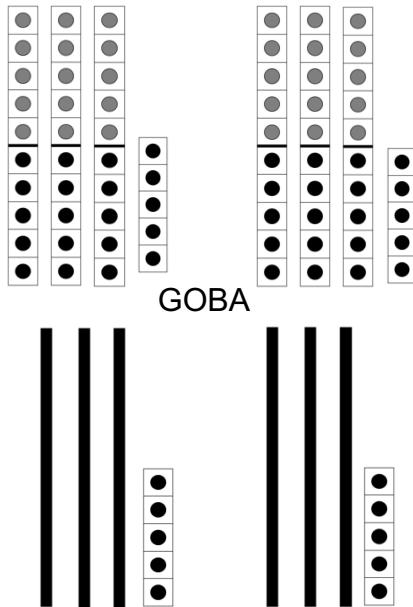
"Ke eng...?"

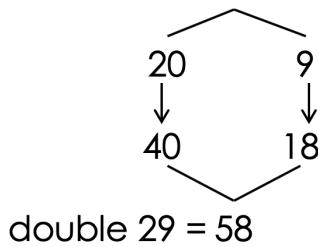
Morutiši: pedifatša 30	→	Barutwana: 60
Morutiši: pedifatša 10	→	Barutwana: 20
Morutiši: pedifatša 50	→	Barutwana: 100
Morutiši: seripagare sa 40	→	Barutwana: 20
Morutiši: seripagare sa 50	→	Barutwana: 25
Morutiši: seripagare sa 100	→	Barutwana: 50
		bjalo bjalo...

### Tatelano ya mošongwana

Mo go thutwana ye re itlwaetša pedifatšo ya dinomoro tša dijiti tše pedi.

*Ela hloko: Letlakala le letlele le lesese la marontho le gona ka gare ga puku ye Kgatiso Kgolo ya mongwalo.*

<p>Rarolla: Pedifatša 35</p> <p>Šomiša matlakala a matelele a masese a tshela a marontho a 10, le a mabedi a marontho a 5, gomme o a beakanye gore a bontšhe pedifatšo ya 35.</p> <p>Morutiši: Ke lefokopalo lefe la pedifatšo leo taekramo e le bontšhago?</p> <p>Gopotša barutwana gore letlakala le letlele le lesese le 1 ( e ka ba marontho goba mothalo wo o tiilego) le bontšha lesome le 1.</p> <p>Barutwana: Pedifatša 35 (or 35 + 35)</p> <p>Morutiši: Naa re ka hwetša bjang karabo?</p> <p>Theeletša barutwana bao ba bolelago ka go bea masome mmogo go hwetša masome a 6 goba 60 le go bea 5 tše pedi mmogo go fa 10.</p> <p>Ngwala mokgwa wa go 'hlahlamolla' bjale ka ge o bontšhitšwe ka thoko letlapeng</p>	<p>Pedifatša 35</p>  <p>double 35</p> <pre> graph TD     30[30] --&gt; 60[60]     5[5] --&gt; 10[10]     60 --- 10     60 --- 10     60 --- 10     60 --- 10     60 --- 10     60 --- 10     60 --- 10     60 --- 10     60 --- 10     60 --- 10     10 --- 10     10 --- 10     10 --- 10     10 --- 10     10 --- 10     10 --- 10     10 --- 10     10 --- 10     10 --- 10     10 --- 10   </pre> <p>double 35 = 70</p>
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<p>Rarolla: <math>29 \times 2</math></p> <p>Boeletša mokgwa wa go hlahlamolla go pedifatšo ya 29 ka ge o bontšitšwe. Gopotša barutwana gore go atiša ka 2 (goba <math>x 2</math>) go swana le go pedifatša.</p> <p>Dumelela barutwana go go thuša go tlatša pedifatšo ya masome le metšo.</p> <p>Barutwana ba bangwe batla re <math>29 \times 2</math> ke  <math>- 2 = 58</math>. Mokgwa wo o swanetše go amogelwa.</p>	<p style="text-align: center;">double 29</p>  <p style="text-align: center;">double 29 = 58</p>
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### Mešongwana ya Morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago :

Pedifatša 41      Pedifatša 36      Pedifatša 47

Barutwana ba swanetše go ngwala mokgwa wa go hlahlamolla le go šoma ka bobedi bja masome le metšo. Morero ke gore re kgone go tseba go araba dipotšišo tše ka hlogo.

Barutwana ba swanetše go hlaloša kgopolu ya bona, mohl. "47 gabedi ke 40 gabedi (ke 80) le 7 gabedi (ke 14). 80 le 14 ke 80, 90,94"

Botša barutwana gore ba se ke ba balela ka bo 1.

### Mošongwana wa gae – Letlakalatšhomo la 1

Mafelelong a lenaneo la thutwana ya lehono, efa barutwana letlakalatšhomo la 1.

Ga se wa swanela go beela barutwana nako ge ba dira letlakalatšhomo le. Maikemišetšo ke go fa barutwana mešongwana ye mengwe ye ba e dirilego ka hlogo.

### Thekgo ka Bidio

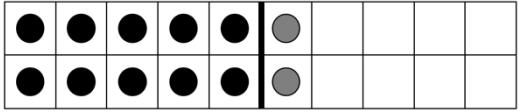
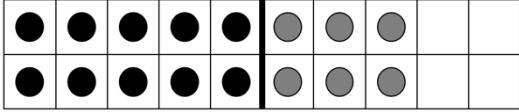
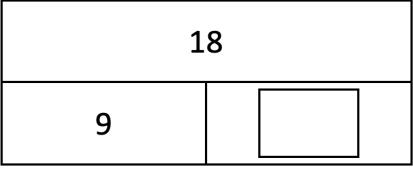
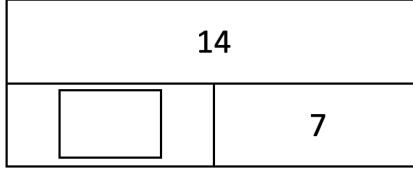
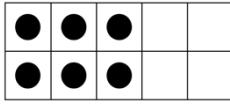
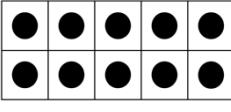
Pedifatša le go Ripagare 4



<https://youtu.be/qnSniN-bliU>

Leina:

**Pedifatšo le go Ripagare: Letlakalatšhomo la 1**

1.  $6 + 6 =$ <input type="text"/>	11.  $8 + 8 =$ <input type="text"/>
2. Seripagare sa 12 = <input type="text"/>	12. $11 \times 2 =$ <input type="text"/>
3. $9 + 9 =$ <input type="text"/>	13. Seripagare sa <input type="text"/> = 8
4. pedifatša 7 = <input type="text"/>	14. pedifatša 30 = <input type="text"/>
5. <input type="text"/> $\times 2 = 16$	15. pedifatša 50 = <input type="text"/>
6. 	16. 
7. pedifatša 10 = <input type="text"/>	17. Seripagare sa 40 = <input type="text"/>
8.  Seripagare sa 6 = <input type="text"/>	18.  Seripagare sa 10 = <input type="text"/>
9. $12 \div 2 =$ <input type="text"/>	19. Seripagare sa 70 = <input type="text"/>
10. Seripagare sa 14 = <input type="text"/>	20. $2 \times 70 =$ <input type="text"/>

**Dintlha tša morutiši**

Mo o ka ngwala dintlha ka thutwana le gore na ke barutwana bafe bao ba nyakago thušo ka mekgwa ya go fapanā. O ka dira dintlha ka mathata a mangwe ao o ka a tšweletšago go thutwana ya go thoma ye e latelago.

**Thekgo ka Bidio**

Pedifatša le go Ripagare 5



<https://youtu.be/t2jBnZHnn1Y>

**PEDIFATŠA: THUTWANA YA GO THOMA YA 5****Motsotso wo 1 wa go šidulla monagano**

Pedifatša le go ripagare ga dinomoro tša go tswalana

**Tatelano ya Mešongwana**

Mo go thutwana ye re ithuta seripagare sa dinomoro tša dijiti tše pedi.

<p>Rarolla: <math>62 \div 2</math></p> <p>Gopotša barutwana gore go arola ka 2 (<math>\div 2</math>) go swana le go šoma ka go tšwa go seripagare.</p> <p>Morutiši: Naa re ka šoma bjang gore seripagare sa 62 ke eng?</p> <p>Theeletša barutwana bao ba bolelago ka 60 go hwetša 30 le seripagare sa 2 go hwetša 1, go hwetša karabo ya 31.</p> <p>Ngwala mokgwa wa go ‘hlahlamolla’ bjale ka ge o bontshitšwe ka thoko letlapeng</p>	<p>half of 62</p> <p>60      2</p> <p>↓      ↓</p> <p>30      1</p> <p>half of 62 = 31</p>
<p>Rarolla: <math>76 \div 2</math></p> <p>Boeletša mokgwa wa go hlahlamolla go seripagare sa 76 bjale ka ge se bontshitšwe. Gopotša barutwana gore go arola ka 2 (goba <math>\div 2</math>) e swana le go ripagare Dumelela barutwana go go thuša go tlatša diripagare tša masome le metšo.</p>	<p>half of 76</p> <p>70      6</p> <p>↓      ↓</p> <p>35      3</p> <p>half of 76 = 38</p>

**Mešongwana ya Morutwana**

Barutwana ba swanetše go leka go dira mehlala ye e latelago:

$$\text{seripagare sa } 42 \qquad 68 \div 2 \qquad 34 \div 2$$

Barutwana ba swanetše go ngwala mokgwa wa go hlahlamolla le ka go šoma ka mokgwa wa go ripagare masome le tša metšo ka hlogo.

Barutwana ba swanetše go hlaloša dikgopololo taš bona, mohl. “ $34 \div 2$  ke seripagare sa 30 (ke 15) gomme seripagare sa 4 (ke 2). 15 le 2 ke 17.”

Botša barutwana gore ba se ke ba balela ka bo 1.

**Thekgo ka Bidio**

Pedifatša le go Ripagare 6



<https://youtu.be/fxDY11LICsc>

## PEDIFATŠO LE GO RIPAGARE: THUTWANA YA GO THOMA YA 6

### Motsotso wo 1 wa go šidulla monagano

Bolela ka mokgwa wo mongwe:

Šoma ka mekgwa ye e fapanego ya go emela go pedifatša le go ripagare. Tše di ka akaretša mantšu a go swana le ‘pedifatša 7’ le ‘seripagare sa 16’, goba lehlakore le lengwe go swana le ‘dihlopha tše pedi tša 7’ goba ‘7 le 7’ goba ‘7 + 7’ goba ‘16 ÷ 2’ goba’ lesometshela e abaganywa magareng ga pedi’.

Ye e ka akaretša go nea ka seswantšho bjalo ka seo se lego ka fase:

9	9
18	

Barutwana ba swanetše go fa mekgwa ka go bolela goba go ngwala ‘pedifatšo ya 9 = 18’ mohl.  $9 + 9 = 18$     $18 - 9 = 9$    senyane tše pedi di dira  $18 \div 9 = 2$

### Tatelano ya mešongwana

Mo go thutwana ye re šomiša mekgwa ya go fapana ka dipedifatšo le diripagare.

<p>Rarolla: 26 ga bedi</p> <p>Botšiša barutwana ka mekgwa ye e fapanego ya go bolela seo ba se bonago go taekramo ye.</p> <p>Mohlala, pedifatšo ya 26 e swana le <math>26 \times 2</math> goba ‘dihlopha tše pedi tša 26’. Mohlala wo mongwe ke gore pedifatšo ya 26 e feta pedifatšo ya 25 ka 2 ka lebaka la gore sehlopha se sengwe le se sengwe se na le 1 go feta ka gare ga yona.</p> <p>Oketša dikgopololo tše dingwe tše mpsha go tšwa go barutwana go ya go taekramo.</p> <p>Barutwana ba bangwe ba ka fa palo ya go ntšha, <math>52 - 26 = 26</math>. Ngwala se godimo ga taekramo ge e filwe. Kgokaganyo ya go hlakantšha le go ntšha e rutilwe bjalo ka mokgwa mafelelong a sete ya dithutwana tša go thoma.</p>	
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### Mešongwana ya Morutwana

Bjale barutwana ba swanetše go thala taekramo ya go kgokaganya dintlha, go swana le yeo e lego ka godimo, kgokaganya go:

$$\text{pedifatšo ya } 43 = 86$$

Barutwana ba swanetše go hlaloša kgopololo ya bona, mohl. “ke tseba gore 43 le 43 ke 86, bjale, ke tseba pedifatšo ya 430 gore ke 860.”

Ge barutwana ba bangwe ba ka fetša mošongwana wo ka pela, ba kgopele gore ba dire taekramo ya go kgokaganya dintlha ba thoma ka ye nngwe ya pedifatšo goba ya seripagare ye ba e kgethago.

**PEDIFATŠA LE GO RIPAGARE: THUTWANA YA GO THOMA YA 7****Motsotso wo 1 wa go šidulla monagano**

Pedifatšo le go ripagare tša palokatišanetšwa ya 10, 100, 1 000

“Ke eng...?”

Morutiši: pedifatša 10	→	Barutwana: 20
Morutiši: pedifatša 100	→	Barutwana: 200
Morutiši: pedifatša 1000	→	Barutwana: 2000
Morutiši: seripagare sa 40	→	Barutwana: 20
Morutiši: seripagare sa 400	→	Barutwana: 200
Morutiši: seripagare sa 4000	→	Barutwana: 2000    bjalo bjalo...

Tatelano ya mešongwana

Mo go thutwana ye re ithuta dipedifatšo le diripagare tša palokatišanetšwa ya 10

Rarolla : pedifatša 34 → pedifatša 340 → pedifatša 3400  Morutiši: Naa re ka šoma bjang gore ke eng pedifatšo ya 34?  Theeletša barutwana bao ba bolelago ka pedifatšo ya 30 go hwetša 60 le pedifatšo ya 4 go hwetša 8, go hwetša 68.  Ge barutwana ba palelwa ke go balela tše ka hlogo, ngwala mokgwa wo wa go ‘hlahlamolla’ ka ge o bontšhitšwe.  Morutiši: Naa re ka šomiša seo re se tsebago ka ga 34 go šoma pedifatšo ya 340 gore e ka ba eng?  Theeletša go barutwana bao ba bolelago gore 340 ke katišo ya 10 go feta 34, bjale pedifatšo ya 340 ke lesome go feta 68; ke 680.	<pre> graph TD     A[double 34] --- B[30]     A --- C[4]     B --- D[60]     C --- E[8]     D --- F[60]     E --- G[8]     F --- H[68]     G --- I[68]     H --- J[double 34 = 68]   </pre> <p>pedifatšo ya 34 = 68 pedifatšo ya 340 = <input type="text"/></p>
Rarolla: seripagare sa 46 → seripagare sa 460  Morutiši: Naa re ka šoma bjang gore seripagare sa 46 ke eng?  Theeletša go barutwana bao ba bolelago ka 40 go hwetša 20 le seripagare sa 6 go hwetša 3, go hwetša 23.  Ge barutwana ba palelwa ke go balela se ka hlogo, ngwala mokgwa wa go ‘hlahlamolla’ bjale ka ge o bontšhitšwe.  Morutiši: Re ka šomiša seo re se tsebago ka seripagare sa 46 go hwetša seripagare sa 460 gore e ka ba eng?	<pre> graph TD     A[half of 46] --- B[40]     A --- C[6]     B --- D[20]     C --- E[3]     D --- F[20]     E --- G[3]     F --- H[23]     G --- I[23]     H --- J[half of 46 = 23]   </pre> <p>seripagare sa 46 = 23 seripagare sa 460 = <input type="text"/></p>

Theeletša go barutwana bao ba bolelago gore 460 ke katišo ya 10 go feta 46, bjale seripagare sa 460 ke lesome ga 23 = 230.	
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### Mešongwana ya Morutwana

Bjale barutwana ba swanetše go thala taekramo ya go kgokaganya dintlha, go swana le ya ka godimo, kgokaganya go:

Pedifatša 45   pedifatša 27        seripagare sa 82        seripagare sa 76  
pedifatša 450   pedifatša 270        seripagare sa 820        seripagare sa 760

Hlohlleletša barutwana go balela pedifatšo ya pele goba seripagare sa pele ka hlogo ge ba ka kgoni le go šomiša paterone go napa ba araba dipedifatšo goba diripagare ka pela ka moo ba ka kgonago.

### Mošongwana wa gae – Letlakalatšhomo la 2

Mafelelong a lenaneo la thutwana ya lehono, efa barutwana letlakalatšhomo la 2

Ga se wa swanela go beela barutwana nako ge ba dira letlakalatšhomo le. Maikemišetšo ke go fa barutwana mešongwana ye mengwe ye ba e dirilego ka hlogo.

### Thekgo ka Bidio

Pedifatša le go Ripagare 7



<https://youtu.be/JJUPpmMdaAw>

Leina:

**Pedifatšo le go Ripagare: Letlakalatšhomo la 2**

1. Pedifatšo ya 32 ke <input type="text"/>	11. Pedifatšo ya 44 ke <input type="text"/>
2. $26 \times 2 =$ <input type="text"/>	12. $38 \times 2 =$ <input type="text"/>
3. $42 \div 2 =$ <input type="text"/>	13. $86 \div 2 =$ <input type="text"/>
4. Seripagare sa 110 = <input type="text"/>	14. Seripagare sa 104 = <input type="text"/>
5. Pedifatšo 23 = <input type="text"/>	15. Pedifatša 39 = <input type="text"/>
6. Seripagare sa 36 = <input type="text"/>	16. Seripagare sa 48 = <input type="text"/>
<b>Pedifatšo ya 31 ke 62</b> 7. $2 \times 31 =$ <input type="text"/> 8. Seripagare sa 62 ke <input type="text"/> 9. $31 + 32 =$ <input type="text"/> 10. Pedifatšo ya 31 = $30 + 30 +$ <input type="text"/>	
<b>Pedifatšo ya 49 ke 98</b> 17. $2 \times 49 =$ <input type="text"/> 18. seripagare sa 98 ke <input type="text"/> 19. $49 + 48 =$ <input type="text"/> 20. Pedifatšo ya 49 = $50 + 50 -$ <input type="text"/>	

### **Dintlha tša Morutiši**

Mo o ka ngwala dintlha mabapi le thutwana le gore naa ke barutwana bafe bao ba nyakago thušo ka mekgwa ya go fapanā. O ka dira dintlha tše dingwe tše o nyakago go di rarolla ka thutwana ya go thoma ya go latela.

**Thekgo ka Bidio**

Pedifatša le go Ripagare 8



[https://youtu.be/\\_qp\\_sjlzqLw](https://youtu.be/_qp_sjlzqLw)

**PEDIFATŠA LE GO RIPAGARE: THUTWANA YA GO THOMA YA 8****Motsotso wo 1 wa go šidulla Monagano**

Pedifatšo le go ripagare ga dinomoro tša go tswalana

**Tatelano ya mešongwana**

Mo go thutwana ye re aga kgokaganyo ya dintlha nyalelana le pedifatšo le seripagare sa nomoro ye e filwego, go akaretša pedifatšo tša kgausi.

<p>Rarolla: pedifatša 17</p> <p>Botšiša barutwana ka mekgwa ya go fapania ya go bolela seo ba se bonago mo taekramong.</p> <p>Mohlala, <math>17 + 18 = \square</math> e swanetše e be le 1 go feta <math>17 + 17</math>. Mohlala wo mongwe ke gore pedifatšo ya 17 ke 2 go feta pedifatšo ya 16 ka gore sehlopha se sengwe le se sengwe se na le 1 go feta ka go sona.</p> <p>Oketša dikgopoloo tše dingwe go tšwa go barutwana go ya go taekramo.</p> <p>Barutwana ba bangwe ba ka fa palo ya go ntšha <math>34 - 17 = 17</math>. Ngwala se godimo ga taekramo ge e filwe. Kgokaganyo ya go hlakantšha le go ntšha e rutilwe bjalo ka mokgwa mafelelong a sete ya dithutwana tša go thoma.</p>	<p>double 17 = double 16 + <math>\square</math>      double 170 = <math>\square</math> half of 34 = <math>\square</math></p> <p style="text-align: center;"><math>\text{double } 17 = 34</math></p> <p style="text-align: left;">17 + 18 = <math>\square</math>      17 + 16 = <math>\square</math></p>
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**Mešongawana ya Morutwana wa 1.**

Bjale barutwana ba swanetše go thala taekramo ya go kgokaganya dintlha, go swana le ya ka godimo, kgokaganya go:

Pedifatšo ya 38 = 76

Mohlala, ‘38 + 38 = 76’ goba ‘seripagare sa 760 = 380’ goba ‘seripagare sa seripagare sa 76 = 19’

Barutwana ba swanetše go hlaloša kgopolo ya bona, mohl. “kotara ya 76 ke 19 ka gobane ke ripile gare ka ba ka ripagare gape’

Botša barutwana gore ba se ke ba balela ka bo 1.

2. Barutwana ba swanetše go leka go araba dipotšišo tše:

Pedifatšo ya 99 ke eng?

Feleletša lefoko le: Pedifatšo ya 99 = pedifatšo ya 100 –  $\square$

Pedifatšo ya 49 ke eng?

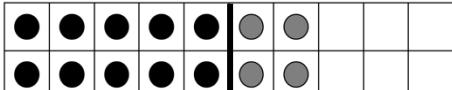
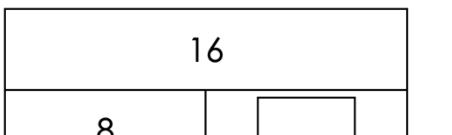
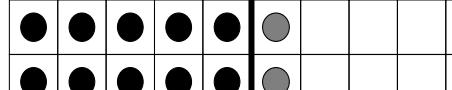
Ge barutwana ba bangwe ba ka fetša mošongwana wo ka pela, ba kgopele gore ba dire taekramo ye nngwe ya go kgokaganya dintlha ba thoma ka ye nngwe ya pedifatšo goba ya seripagare ye ba e kgethago.

Leina:

**Pedifatšo le Go Ripagare: Molekwana wa ka morago ga Thutwana**

SERIPA SA 1

Metsotso e 2 go letlakala le

1.		11.	$14 + 14 =$ <input type="text"/>
	$7 + 7 =$ <input type="text"/>		
2.	seripagare sa 14 = <input type="text"/>	12.	$7 \times 2 =$ <input type="text"/>
3.	$9 + 9 =$ <input type="text"/>	13.	seripagare sa <input type="text"/> = 7
4.	pedifatša 8 = <input type="text"/>	14.	pedifatša 100 = <input type="text"/>
5.	<input type="text"/> $\times 2 = 14$	15.	pedifatša 20 = <input type="text"/>
6.	 16.	16.	seripagare sa <input type="text"/> = 40
7.	pedifatša 10 = <input type="text"/>	17.	seripagare sa 50 = <input type="text"/>
8.	 seripagare sa 12 = <input type="text"/>	18.	$18 \div 2 =$ <input type="text"/>
9.	$10 \div 2 =$ <input type="text"/>	19.	seripagare sa 30 = <input type="text"/>
10.	seripagare sa 18 = <input type="text"/>	20.	$2 \times 60 =$ <input type="text"/>
Palomoka go 20			

1. pedifatša 42 =

2.  $36 \times 2 =$

3.  $64 \div 2 =$

4. seripagare sa 102 =

5. pedifatša 99 =

6. seripagare sa 38 =

7. seripagare sa  = 52

**Pedifatšo ya 39 ke 78**

8. seripagare sa 78 ke

9.  $39 + 38 =$

10. pedifatšo ya 39 =  $40 + 40 -$

Palomoka go 10

## GO BATAMETŠA KGAUSWI LE GO LOKIŠA

### MATSENO

Go dithutwana tše tharo tša mathomo tša go thoma, go lebeletšwe go šomiša go batametša go nomoro ya tswalano le go lokiša. Go dithutwana tša go thoma tše tharo tša go latela, di tsepeletše go go ntšha go šomišwa go batametša le go lokiša. Dithutwana tše pedi tša go thoma tša mafelelo, di tsepeletše go dipalo moo dinomoro tša go feta e tee di ka batametšwago go nomoro ya tswalano. Dinomoro tša go tswalana ke dinomoro tše di lego bonolo go šoma ka tšona. Gantši ke dipalokatišanetšwa tša lesome. Ye mengwe ya mešongwana ke ya go etwapele ke morutiši mola ye mengwe morutwana a itirela ka bo noši.

### Bokgoni bja go Gopola ka Pela

Gona le mabokgoni a tshela a go gopola ka pela ao baithuti ba swanetšego ke go ithuta mekgwa ya go batametša le go lokiša:

- balela pele goba morago ka bo 10 go tšwa go nomoro efe goba efe (mohl. 12, 22, 32, or 57, 47, 37, ...)
- hlakantšha goba ntšha 1, 2 le 3 go tšwa go nomoro efe goba efe ka go kgaoletša goba o sa kgaoletse ka lesome (mohl.  $49 + 1 = 50$  goba  $30 - 2 = 28$ ;  $49 + 2 = 51$  goba  $52 - 3 = 49$ ).
- Hlakantšha palokatišanetšwa ya lesome go nomoro efe goba efe (mohl.  $61 + 20 = 81$ )
- ntšha palokatišanetšwa ya lesome go tšwa go nomoro efe goba efe (mohl.  $46 - 30 = 16$ )
- tseba palokatišanetšwa ya lesome ya kgauswi kudu (mohl. 47 e kgauswi kudu le 50; 39 e kgauswi kudu le 40)
- tseba gore o ka fihla bjang go palokatišanetšwa ya lesome ya kgauswi 10 (mohl. 43 ke 3 go tšwa go 40; 19 ke 1 go tšwa go 20).

Leina:

<b>Go Batametša kgauswi le go Lokiša: Molekwana wa pele ga Thutwana</b> <b>SERIPA SA 1</b>		<b>Metsotso e 2 go letlakala le</b>
1. $23 + 30 =$ <input type="text"/>	11. $69 + 2 =$ <input type="text"/>	
2. $42 - 3 =$ <input type="text"/>	12. $68 + 10 =$ <input type="text"/>	
3. $57 - 10 =$ <input type="text"/>	13. $38 + 3 =$ <input type="text"/>	
4. $51 - 2 =$ <input type="text"/>	14. $145 + 30 =$ <input type="text"/>	
5. $137 - 20 =$ <input type="text"/>	15. $97 - 60 =$ <input type="text"/>	
6. $43 + 40 =$ <input type="text"/>	16. $48 =$ <input type="text"/> - 2	
7. $29 =$ <input type="text"/> - 1	17. $49 +$ <input type="text"/> = 50	
8. $67 +$ <input type="text"/> = 70	18. pedifatšo ya 50 = <input type="text"/>	
9. $97 = 100 -$ <input type="text"/>	19. pedifatšo ya 100 = <input type="text"/>	
10. $88 +$ <input type="text"/> = 90	20. $28 +$ <input type="text"/> = 30	
Palomoka go 20		

**Go Batametša kgauswi le go Lokiša: Molekwana wa pele ga Thutwana**

SERIPA SA 2	Metsotso e 3 go letlakala le
1. $34 + 29 =$ <input type="text"/>	
2. $64 - 19 =$ <input type="text"/>	
3. $27 + 98 =$ <input type="text"/>	
4. $234 - 99 =$ <input type="text"/>	
5. $97 + 98 + 99 =$ <input type="text"/>	
6.	$68 + \boxed{\phantom{0}} = 68 + 10 - 1$
7.	$67 - 18 = 67 - 20 + \boxed{\phantom{0}}$
8.	$56 + 28 = 56 + \boxed{\phantom{0}} - 2$
9.	$84 - 39 = 84 - \boxed{\phantom{0}} + 1$
10.	<p>Dira sediko go lefokopalo leo le re fago karabo ya go swana le ye:</p> $80 - 59$ $80 + 60 - 1$ $80 - 60 + 1$ $80 - 60 - 1$ $80 + 60 + 1$
Palomoka go 10	

**GO BATAMETŠA LE GO LOKIŠA: THUTWANA YA GO THOMA YA 1**

# Motsotso wo 1 wa go šidulla Monagano

a. Dikologa phaphoši go feta10 go feta

Morutiši o bolela nomoro gomme barutwana ba araba ka go dikologa phaphoši ga 10 go feta nomoro ya mafelelo

Morutiši: 16

Morutwana wa 1: 26 → Morutwana wa 2: 36 → Morutwana wa 3: 46 →  
Morutwana wa 4: 56 bjalo bjalo.

b. hlakantšha dipalokatišanetšwa tša 10

“Ke eng...?”

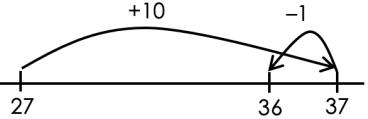
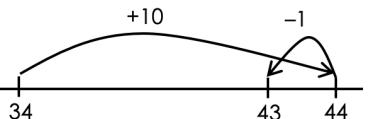
Morutiš: 43 + 20 → Morutwana: 63

Morutiši: 35 + 20 → Morutwana: 55

Morutiši: 42 + 30 → Morutwana: 72 bialo bialo...

## Tatelano ya mešongwana

Go thutwana ye re tšweletša mekwa ya qo batametša kgauswi le qo lokiša.

<p>Kgopela barutwana gore ba fe dikarabo go mošongwana letlapeng (di filwe ka go la go ja) o be o botšše barutwana gore ba bona eng.</p> <p>Morutiši: Ke eng se o se bonago?</p> <p>Barutwana: Ge o hlakantšha le 9 e re fa karabo ya go swana le ge o hlakantšha le 10 o ntšha 1.</p>	<p>Ngwala letlapeng:</p> $27 + 9 =$ $27 + 10 =$ $34 + 9 =$ $34 + 10 =$ $62 + 9 =$ $62 + 10 =$
<p>Morutiši: Dinomoro tša go tswalana ke dinomoro tše di lego bonolo go šoma ka tšona. Lesome ke nomoro ya tswalano. Go mokgwa wo, ge re hlakantšha le 9, re batametsa nomoro ye 9 go 10. Re dira se, ka lebaka la gore e kgauswi le 10 ka gomme 10 ke nomoro ya tswalano ka fao e bonolo go hlakantšha.</p> <p>Bjale re hlakantšha le 10 le go <b>lokiša</b> karabo ya rena ka go ntšha 1 ye e hlakantšhitšwego le yona ge re batametsa.</p> <p>Bontšha <math>27 + 9</math>; <math>34 + 9</math> le <math>62 + 9</math> ka methalopalo letlapeng.</p> <p>Morutiši: Mokgwa wo re go bitša <b>go Batametša</b> kgauswi le go <b>Lokiša</b>.</p>	<p><math>27 + 9</math></p>  <p><math>34 + 9</math></p>  <p><math>62 + 9</math></p>  <p>Ngwala letlapeng:</p> <p>Go batametša kgauswi le go Lokiša</p>

Kgopela barutwana go bolelele mantšu a godimo, batametša le lokiša o šupa mantšu letlapeng ge ba a bolela.	
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### Mošongwana wa morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$33 + 9 \quad 48 + 9 \quad 76 + 9 \quad 84 + 9$$

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl. “ go 33 + 9, ke batametša 9 go 10 gomme ka hlakantšha 10 go 33 go hwetša 43; ka lokiša karabo ka go ntšha 1, bjale karabo ke 42.” Ge o boeletša mekgwa ya barutwana gatelela moo ba batameditšego le moo ba lokišitšego.

### Thekgo ka Bidio

Go batametša kgauswi le go Lokiša ya 1



<https://youtu.be/jpwwvujejpl>

**GO BATAMETŠA LE GO LOKIŠA: THUTWANA YA GO THOMA YA 2**

**Motsotso wo 1 wa go šidulla Monagano**

- a. Pop-Fizz: Kgauswi le palokatišanetšwa ya 10

Morutisi o re 'pop' gomme barutwana ba re 'fizz'; bjale morutiši o bolela nomoro, gomme barutwana ba araba ka palokatišanetšwa ya lesome la kgauswi.

Go phetolelo ye, barutwana ba swanetše go araba ka palokatišanetšwa ya lesome la kgauswi.

Morutiši: pop	→	Barutwana: fizz
Morutiši: 18	→	Barutwana: 20
Morutiši: pop	→	Barutwana: fizz
Morutiši: 37	→	Barutwana: 40
Morutiši: pop	→	Barutwana: fizz
Morutiši: 42	→	Barutwana: 40
Morutiši: pop	→	Barutwana: fizz
Morutiši: 33	→	Barutwana: 30
		bjalo bjalo...

- b. Pop-Fizz: Ka moo o ka tabogelago qo palokatišanetšwa ya lesome la kqauswi.

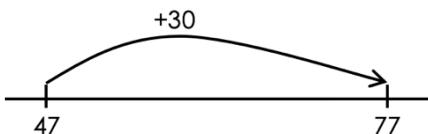
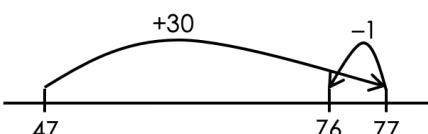
Bjale barutwana ba bolela gore ke eng seo se swanetšego go direga go ya go palokatišanetšwa ya lesome la kgauswi.

Morutiši: 7	→	Barutwana: +3
Morutiši: 28	→	Barutwana: +2
Morutiši: 19	→	Barutwana: +1
Morutiši: 43	→	Barutwana: -3
Morutiši: 32	→	Barutwana: -2
Morutiši: 11	→	Barutwana: -1
		bjalo bjalo...

## Tatelano ya mešongwana

Mo go thutwana ye, re tšweletša mokgwa wa go batametša le go lokiša bakeng sa go hlakantšha.

<p>Botšiša barutwana gore ba gopola eng ka mekgwa ya go taboga.</p>	<p>Mošomo wa letlapeng wa mafelelo o laeditšwe ka fase:</p>
<p>Morutiši: Ge re be re šomiša mekgwa ya go taboga, re hlakantšitše bjang <math>47 + 29</math>?</p>	$47 + 29 = 76$
<p>Dumelela barutwana go hlaloša mokgwa gomme o kgopele morutwana go go laetša letlapeng. Gopotša barutwana ka magato: <b>swaya, hlahlamolla, taboga le go araba.</b></p>	
<p>Barutwan: Hlakantšha 20 go 47 go hwetša 67 bjale hlakantšha le 3 go hwetša 70, bjale hlakantšha le 6 (<math>3 + 6 = 9</math>).</p>	
<p>Morutiši: Ke nomoro efe ya tswalano yeo 29 e lego kgauswi le yona?</p>	<p><math>47 + 29</math></p>

<p>Barutwana: 30          Morutiši: Ge re batametša 29 go 30 gomme ra taboga              30 re tabogela pele go tšwa go 47, re tla              ba kae?          Barutwana: 77( bontšha letlapeng)          Morutiši: 77 ke yona karabo ya mafelelo goba re              swanetše go <b>Lokiša</b> naa?          Kgopela barutwana gore ba hlaloše mabaka a go              lokiša karabo: Re hlakantšhitše ka ye              nngwe ya go oketša, bjale re swanetše re              ntšhe tee go tšwa go karabo go hwetša              76.          Laetša se godimo ga mothalopalo letlapeng.          Botša barutwana mokgwa wo wa go batametša le go              lokiša gore o šoma ga botse ge nomoro ye tee e le              kgauswi kudu le nomoro ya tswalano.</p>	 <p>Hlakantšha godimo ga mothalopalo:</p> 
---	--

### Mošongwana wa morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$26 + 19 \quad 54 + 39$$

Barutwana ba swanetše go hlaloša kgopolو ya bona,mohl.“go 26 + 19, ke batametša 19 go 20 gomme ka hlakantšha 20 go 26 go hwetša 46; bjale ke lokiša karabo ka go ntšha 1, bjale karabo ke 45.” Ge o tšwelapele o boeletša mekgwa ya barutwana gatelela moo ba batameditšego le moo ba lokišitšego.

### Thekgo ka Bidio

Go Batametša le go Lokiša 2



<https://youtu.be/fGILndzXfSY>

## GO BATAMETŠA LE GO LOKIŠA: THUTWANA YA GO THOMA YA 3

### Motsotso wo 1 wa go šidulla monagano

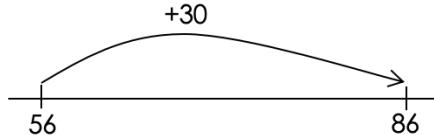
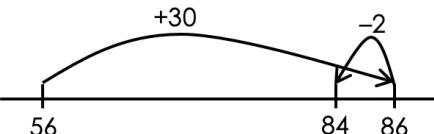
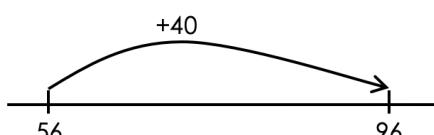
- a. Pop-Fizz: Mokgwa wa go tabogela go palokatišanetšwa ya lesome la kgauswi
- b. Dipalo tša ka pela: Ntšha 1, 2 goba 3

“Ke eng ...?”

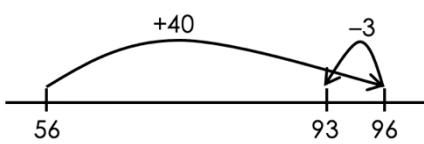
Morutiši: 63 – 1	→	Barutwana: 62	
Morutiši: 54 – 2	→	Barutwana: 52	
Morutiši: 78 – 1	→	Barutwana: 77	
Morutiši: 61 – 2	→	Barutwana: 59	
Morutiši: 52 – 3	→	Barutwana 49	bjalo bjalo...

### Tatelano ya mešongwana

Mo go thutwana ye, re tšweletša mokgwa wa go batametša le go lokiša sebakeng sa go hlakantšha.

<p>Morutiši: ge re hlakantšha 28 goba 38 goba 48 go nomoro, re ka šomiša mokgwa wa go batametša le go lokiša naa? Re ka go šomiša go rarolla 56 +28? Ke nomoro efe ya tswalano yeo 28 e le go kgauswi kudu le yona?</p> <p>Morutwana: 30</p> <p>Morutiši: Ge re ka lokiša 28 le 30 gomme ra taboga 30 go ya pele go tšwa go 56, re tlaba re le kae?</p> <p>Barutwana: 86</p> <p>Morutiši: Naa re swanetše re lokiše bjang 86?</p> <p>Kgopela barutwana go hlaloša mabaka a go lokiša karabo: re okeditše ka pedi ye nngwe, bjale re swanetše re ntšhe pedi go tšwa go karabo go hwetsa 84.</p> <p>Bontšha se godimo ga mothlopalo latlapeng.</p>	<p>56 + 28  </p> <p>Hlakantšha godimo ga mothlopalo:  </p>
<p>Morutiši: Ge re oketša 27 goba 37 goba 47 go nomoro, re ka šomiša mokgwa wa go batametša le wa go lokiša naa? Re ka go šomiša go rarolla 56 + 37? Ke nomoro efe ya tswalano yeo 37 e lego kgauswi kudu le yona?</p> <p>Morutwana: 40</p> <p>Morutiši: Ge re batametša 37 go 40 gomme ra taboga 40 go ya pele, re tla ba kae?</p> <p>Morutwana: 96</p>	<p>56 + 37  </p> <p>Hlakantšha godimo ga mothlopalo:</p>

Morutiši: Re swanetše go lokiša bjang 96?  
 Kgopela barutwana go hlaloša mabaka a go lokiša karabo: re okeditše ka tharo ye nngwe, bjale re swanetše re ntšhe tharo go tšwa go karabo go hwetsa 93.  
 Bontšha godimo ga mothalopalo letlapeng.



### Mešongwana ya Morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$25 + 18 \quad 44 + 48 \quad 65 + 27$$

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl. "go 25 + 18, ke batameditše 18 go 20 ka hlakantšha 20 go 25 go hwetša 45; bjale ke lokiša karabo ka go ntšha 2, bjale karabo ke 43. "Ge o bolelša mekgwa ya barutwana gatelela moo ba batameditšego le moo ba lokišitšego.

### Thekgo ka Bidio

Go batametša le go Lokiša 3



[https://youtu.be/St5nSH\\_BdRE](https://youtu.be/St5nSH_BdRE)

**GO BATAMETŠA LE GO LOKIŠA: THUTWANA YA GO THOMA YA 4**

**Motsotso wo 1 wa go šidulla monagano**

a. Dikologa phaphoši ka lesome go ya fase

morutiši o bolela nomoro gomme barutwana ba araba ka go dikologa phapoši ka lesome go ya fase.

Morutiši : 128

morutwana1: 118 → morutwana 2: 108 → morutwana 3: 98 → morutwana 4: 88  
bjalo bjalo.

b. Ntšha dipalokatišanetšwa tša lesome

“ke eng...?”

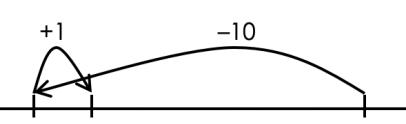
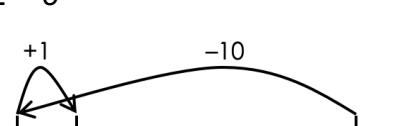
Morutiši: 71 – 20 → Morutwana: 51

Morutiši: 59 – 30 → Morutwana: 29

bjalo bjalo...

# Tatelano ya mešongwana

Mo go thutwana ye re šomiša go mokgwa wa go batametša le go lokiša la go ntšha.

<p>Morutiši: Re ka šomiša mokgwa wa go batametša le go lokiša gape go ntšha dinomoro tše di lego kgauswi kudu le dinomoro tša go tswalana.</p> <p>Ge re dira 27 le 9, re hlakantšha le 10 gomme ra lokiša ka go ntšha tee. Re ka dira <math>27 - 9</math> bjalo ka <math>27 - 10</math> gomme bjalo lokiša ka go <b>hlakantšha</b> le 1 ka lebaka la gore re tšeere tee go feta.</p>	$27 - 9 = 27 - 10$ bjale hlakantšha le 1 
<p>Morutiši: A re dire dipalo tše dingwe re šomiša go batametša le go lokiša go ntšha 9. <math>34 - 9</math> e swana le <math>34 - 10</math> (go batametša) hlakantšha le tee morago (go lokiša)</p> <p>Thala mothalopalo bjalo ka ge o laeditšwe.</p>	$34 - 9$ 
<p>Morutiši: Bjale <math>34 - 9 = 25</math>.</p> <p>Dira <math>62 - 9</math> bjalo ka mohlala wo mongwe go swana ka mokgwa woo gomme o laetše mothalopalo letlapeng.</p>	$62 - 9$ 

## **Mešongwana ya Barutwana**

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$23 - 9 \quad 48 - 9 \quad 76 - 9$$

Barutwana ba swanetše go hlaloša kgopolو ya bona,mohl. "go 23 – 9, ke batametša 9 go 10 ka ntšha 10 go tšwa go 23 go hwetša 13; bjale ke lokiša karabo ka go hlakantšha le 1, bjale karabo ke 14." Ge o boeletša mekgwa ya barutwana gatelela moo ba batameditšego le moo ba lokišitšego.

### **Mošongwana wa gae – Letlakalatšomo la 1**

Mafelelong a lenaneo la thutwana ya lehono, efa barutwana letlakalatšomo la 1

Ga se wa swanela go beela barutwana nako ge ba dira letlakalatšomo le. Maikemišetšo ke go fa barutwana mešongwana ye mengwe ye ba e dirilego ka hlogo.

### **Thekgo ka Bidio**

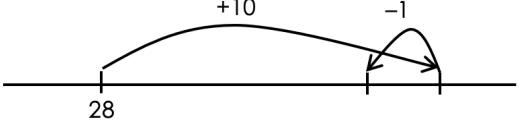
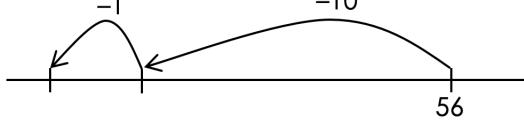
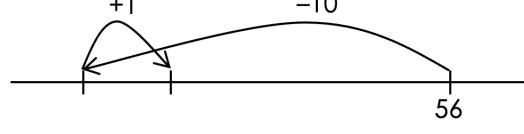
Go batametša le go Lokiša 4



<https://youtu.be/qyCQU1S6M8w>

Leina:

**Go batametša le go Lokiša: Letlakalatšhomo la 1**

1.	$46 + 40 =$ <input type="text"/>	11.	$21 - 3 =$ <input type="text"/>
2.	$57 - 10 =$ <input type="text"/>	12.	$28 + 3 =$ <input type="text"/>
3.	$32 - 3 =$ <input type="text"/>	13.	$26 + 30 =$ <input type="text"/>
4.	$71 - 2 =$ <input type="text"/>	14.	$115 + 50 =$ <input type="text"/>
5.	$167 - 70 =$ <input type="text"/>	15.	$20 \text{ ga bedi} =$ <input type="text"/>
6.	$38 =$ <input type="text"/> $- 2$	16.	$19 =$ <input type="text"/> $- 1$
7.	$68 +$ <input type="text"/> $= 70$	17.	$32 -$ <input type="text"/> $= 30$
8.	$99 = 100 -$ <input type="text"/>	18.	$49 +$ <input type="text"/> $= 50$
9.	$200 \text{ ga bedi} =$ <input type="text"/>	19.	$27 = 30 -$ <input type="text"/>
10.	Dira sediko go mothalopalo wo o bontšago $28 + 9$ .	20.	Dira sediko go mothalopalo wo o bontšago $56 - 9$ .
			
			

**Dintlha tša morutiši**

Mo o ka ngwala dintlha mabapi le thutwana le gore naa ke barutwana bafe bao ba nyakago thušo ka mekgwa ya go fapanā. O ka dira dintlha tše dingwe tše o nyakago go di tšweletša ka thutwana ya go thoma ya go latela.

Go Batametša kgauswi le go Lokiša

**Thekgo ka Bidio**

Go Batametša le go Lokiša 5



<https://youtu.be/VQ8vaRuHBQ>

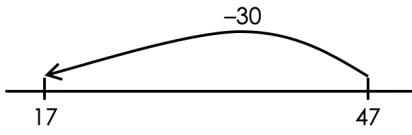
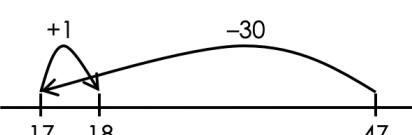
## GO BATAMETŠA LE GO LOKIŠA: THUTWANA YA GO THOMA YA 5

### Motsotso wo 1 wa go šidulla Monagano

- a. Dikologa phaphoši go ya fase ka 20 , go ya fase ka 30
- b. Pop-Fizz: Kgauswi le palokatišanetšwa ya 10

### Tatelano ya mešongwana

Mo go thutwana ye re šomiša mokgwa wa go batametša le go lokiša ka go ntšha.

<p>Morutiši: Naa re ka šomiša bjang mokgwa wa go batametša le go lokiša go rarolla 47 – 29?</p> <p>Ge barutwana ba palelwa ke go hlaloša mokgwa wo, botšiša:</p> <p>Morutiši: ke nomoro efe ya tswalano yeo 29 e lego kgauswi le yona kudu?</p> <p>Barutwana: 30</p> <p>Morutiši: Ge re batametša 29 go 30 gomme re taboga 30 go ya morago go tšwa go 47? Re tla ba kae?</p> <p>Barutwana: 17 (bontšha se letlapeng)</p> <p>Morutiši: 17 ke karabo ya mafelelo goba re swanetše go <b>lokiša</b>?</p> <p>Kgopela barutwana go hlaloša mabaka a go lokiša karabo: re ntšhitše tee, bjale re swanetše re hlakantšhe le tee go karabo go hwetša 18.</p> <p>Bontšha godimo ga mothalopalo letlapeng.</p> <p>Botša barutwana gore mokgwa wo o šoma ga botse ge nomoro yeo e ntšhitšwego e le kgauswi kudu le nomoro ya tswalano.</p>	<p>47 – 29</p>  <p>Hlakantšha godimo ga mothalopalo:</p> 
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### Mešongwana ya Morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$28 - 19 \quad 54 - 39$$

Barutwana ba swanetše go hlaloša kgopolu ya bona, mohl. "go 28 – 19, ke batametša 19 go 20 gomme ka ntšha 20 go tšwa go 28 go hwetša 8; bjale ke lokiša karabo ka go hlakantšha le 1, bjale karabo ke 9." Ge o boeletša mekgwa ya barutwana gatelela moo ba batameditšego le moo ba lokišitšego.

## GO BATAMETŠA LE GO LOKIŠA: THUTWANA YA GO THOMA YA 6

### Motsotso wo 1 wa go šidulla monagano

a. Pop-Fizz: Re tabogela bjang kgauswi le palokatišanetšwa ya lesome (kgetha dinomoro tseo di na go le metšo ya 7, 8 le 9, mohl.  $27 \rightarrow 30$ ;  $58 \rightarrow 60$ ;  $49 \rightarrow 50$ )

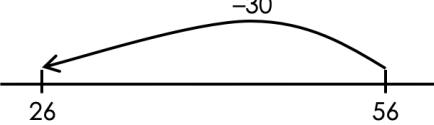
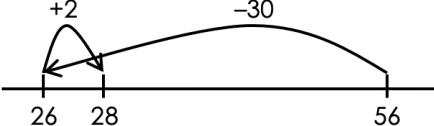
b. Dipalo tša ka pela: hlakantšha 1, 2 goba 3

“Ke eng ...?”

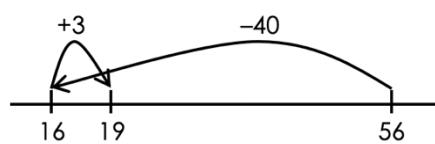
Morutiši: $61 + 2$	$\rightarrow$	Barutwana: 63
Morutiši: $52 + 3$	$\rightarrow$	Barutwana: 55
Morutiši: $77 + 1$	$\rightarrow$	Barutwana: 78
Morutiši: $69 + 2$	$\rightarrow$	Barutwana: 71
Morutiši: $58 + 3$	$\rightarrow$	Barutwana: 61 bjalo blalo...

### Tatelano ya mešongwana

Mo go thutwana ye re tšweletša mokgwa wa go batametša le go lokiša ka go ntšha .

<p>Morutiši: Ge re ntšha 28 goba 38 goba 48 go tšwa go nomoro, re ka šomiša mokgwa wa go batametša le wa go lokiša? Re ka go šomiša bjang go rarolla.</p>	<p><math>56 - 28</math></p>  <p>Hlakantšha godimo ga mothlopalo:</p> 
<p>Ge barutwana ba palelwa ke go hlaloša mokgwa, botšiša:</p>	
<p>Morutiši: ke nomoro efe ya tswalano yeo 28 e lego kgauswi kudu le yona?</p>	
<p>Barutwana: 30</p>	
<p>Morutiši: Ge re batametša 28 go 30 gomme ra taboga 30 go tšwa morago go 56 ? re tlaba re le kae?</p>	
<p>Morutwana: 26 (bontšha se letlapeng)</p>	
<p>Morutiši: Naa re swanetše re lokiše bjang 26?</p>	
<p>Kgopela barutwana go hlaloša mabaka a go lokiša karabo: re ntšhitše pedi, bjale re swanetše re hlakantšhe le pedi go karabo go hwetša 28.</p>	
<p>Bontšha se godimo ga mothlopalo letlapeng.</p>	
<p>Morutiši: Ge re ntšha 27 goba 37 goba 47 go tšwa go nomoro, re ka šomiša mokgwa wa go batametša le wa go lokiša? Re ka o šomiša bjang go rarolla <math>56 - 37</math>?</p>	<p><math>56 - 37</math></p>  <p>Hlakantšha godimo ga mothlopalo:</p>
<p>Ge barutwana ba palelwa ke go hlaloša mokgwa, botšiša:</p>	
<p>Morutiši: Ke nomoro efe ya tswalano yeo 37 e lego kgauswi kudu le yona?</p>	
<p>Barutwana: 40</p>	

Morutiši: Ge re batametša 37 go 40 gomme ra taboga 40 go ya morago go tšwa go 56? Re tlaba re le kae?



Barutwana: 16 ( bontšha letlapeng)

Morutiši: Naa re swanetše go lokiša bjang 16?

Kgopela barutwana go hlaloša mabaka a go lokiša karabo: re ntšhitše tharo, bjale re swanetše re hlakantšha le tharo go karabo go hwetša 19.

Laetša se godimo ga mothalopalo letlapeng.

### Mošongwana wa Barutwana Mešongwana ya Morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$45 - 18 \quad 84 - 48 \quad 65 - 27$$

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl.“go 45 – 18, ke batametša 18 go 20 gomme ka ntšha 20 go tšwa go 45 go hwetša 25; bjale ke lokiša karabo ka go hlakantšha le 2, bjale karabo ke 27”. Ge o boeletša mekgwa ya barutwana gatelela moo ba batameditšego le moo ba lokišitšego.

### Thekgo ka Bidio

Go Batametša le go Lokiša 6



<https://youtu.be/kG9NCQ9gBPY>

**GO BATAMETŠA LE GO LOKIŠA: THUTWANA YA GO THOMA YA 7****Motsotso wo 1 wa go šidulla Monagano**

- a. Pop-Fizz: Kgauswi le palokatišanetšwa ya 10 ya kgauswi  
 b. Pop-Fizz: Re tabogela bjang go palokatišanetšwa ya 10 ya kgauswi

**Tatelano ya mešongwana**

Mo go thutwana ye re šomiša mokgwa wa go batametša le go lokiša ka dipalo moo dinomoro tša go feta e tee di ka go batametšwa.

Morutiši: Re ka šomiša go batametša le go lokiša ge dinomoro bobedi di le kgauswi kudu le dinomoro tša go tswalano. Mohl. 19 +39  Bontšha barutwana mokgwa wa go batametša le go lokiša letlapeng go 19 +39  Ge o ngwala letlapeng, hlaloša:  Morutiši: Re ka batametša dinomoro ka bobedi go 20 le 40 gomme ra di hlakantšha go hwetša 60. Re hlakantšhitše le 1 go nomoro ye nngwe le ye nngwe gomme bjale re swanetše go lokiša ka go ntšha 2 go tšwa go 60 go hwetša 58.  <i>Ela hloko: Ge re lokiša dinomoro ka bobedi, re bontšha se ka go palo ye ngwadilwego gona le gore re e bontšhe letlapeng.</i>	19 + 39 (batametša gotee) = 20 + 40 gomme o lokiše go – 2 (- 1 ye nngwe le ye nngwe) = 60 – 2 = 58
Morutiši: Naa o ka šomiša go batametša le go lokiša bjang go 28 + 49?  Laetša barutwana mokgwa wa go batametša le go lokiša go dipalo letlapeng.	28 + 49 (batametša gotee) = 30 + 50 gomme lokiša – 3 (- 2 and - 1) = 80 – 3 = 77
Morutiši: Naa o ka šomiša go batametša le go lokiša bjang go 57 + 59 + 48?  Laetša barutwana mokgwa wa go batametša le go lokiša go palo ye letlapeng.	57 + 59 + 48 (batametša ka moka) = 60 + 60 + 50 gomme lokiša – 6 (- 3, - 1, - 2) = 170 – 6 = 164

**Mošongwana wa Morutwana**

Barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$38 + 29 \quad 57 + 28 \quad 19 + 19 + 19$$

Barutwana ba swanetše go hlaloša kgopolu ya bona,mohl. “go 38 + 29, ke batametša 38 go 40 ka hlakantšha 40 le 30 go hwetša 70, bjale ke lokiša karabo ka go ntšha 3, bjale

Go Batametša kgauswi le go Lokiša

karabo ke 67,” Ge o boeletša mekgwa ya barutwana gatelela mo ba batameditšego le mo ba lokišitšego.

Ge barutwana ba palelwa ke go hlaloša mošomo wa bona, ba kgopele gore ba o laetše mekgwa ya bona ka go ngwala (bjalo ka ge o laeditšwe mošomong wa letlapeng)

### **Mošongwana wa gae – Letlakalatšomo la 2**

Mafelelong a lenaneo la thutwana ya lehono, efa barutwana letlakalatšomo la 2

Ga se wa swanela go beela barutwana nako ge ba dira letlakalatšomo le. Maikemišetšo ke go fa barutwana mešongwana ye mengwe ye ba e dirilego ka hlogo.

### **Thekgo ka Bidio**

Go Batametša le go Lokiša 7



<https://youtu.be/0TOGmefwNxQ>

Leina:

**Go Batametša Kgauswi le go Lokiša: Letlakalatšomo la 2**

1.  $56 + 29 =$

2.  $54 - 38 =$

3.  $45 + 37 =$

4.  $325 - 99 =$

5.  $47 + 49 + 48 =$

6.

$$47 + \boxed{\phantom{0}} = 47 + 10 - 1$$

7.

$$77 - 28 = 77 - 30 + \boxed{\phantom{0}}$$

8.  $66 + 28 = 66 + \boxed{\phantom{0}} - 2$

9.  $95 - 39 = 95 - \boxed{\phantom{0}} + 1$

10. Dira sediko go lefokopalo leo le re fago karabo ya go swana le ye:

$$80 - 39$$

$$80 + 40 - 1$$

$$80 + 40 + 1$$

$$80 - 40 + 1$$

$$80 - 40 - 1$$

**Dintlha tša Morutiši**

Mo o ka ngwala dintlha mabapi le thutwana le gore naa ke barutwana bafe bao ba nyakago thušo ka mekgwa ya go fapanā. O ka dira dintlha tše dingwe tše o nyakago go di rarolla ka thutwana ya go thoma ya go latela.

**GO BATAMETŠA LE GO LOKIŠA: THUTWANA YA GO THOMA YA 8****Motsotso wo 1 wa go šidulla monagano**

Dikologa phapoši go feta ga 20, go feta ga 30, ga 30 ka fase, ga 40 ka fase.

**Tatelano ya mešongwana**

Mo go thutwana ye re kgetha mokgwa wo mokaonekaone woo re ka go šomišago le go šomiša mokgwa wa go batametša le go lokiša dipalo moo e le go gore go bonolonolo.

<p>Ngwala palomoka ya diphere tše nne letlapeng bjale ka ge di laeditšwe gomme o kgopele barutwana gore ba bolele se:</p> <ul style="list-style-type: none"> <li>• yeo ba tla e šomišago go batametša le go lokiša</li> <li>• yeo ba tla e šomišago go mekgwa ya go fapano go (bjalo ka mekgwa ya go taboga, go kgaoletša ka lesome, le go pedifatša)</li> </ul> <p>Kgopela barutwana go fa mabaka go dikgetho tša bona.</p> <p><i>Ela hloko: 99 + 99 e dirilwe bjalo ka 100 + 100 – 2 e šomiša go batametša, go pedifatša (pedifatšo ya 100 ke 200) le go lokiša.</i></p> <p>Boledišana le barutwana gore ge ba tseba mekgwa, batla kgona go kgetha gore naa ke mokgwa ofe wa ka pela woo ba ka go šomišago le gore ba ka hlakanya mekgwa.</p>	$38 + 49$ $22 + 36$  $38 - 13$ $47 - 29$  $29 + 38 + 39$ $14 + 24 + 33$  $99 + 99$ $45 + 45$
<p>Kgopela barutwana go boledišana ka moo ba ka šomišago mokgwa wa go batametša le go lokiša go rarolla tše:</p> <p><math>38 + 49</math></p> <p><math>47 - 29</math></p> <p><math>29 + 38 + 39</math></p> <p>Barutwana ba swanetše go bolela se sengwe bjalo ka:</p> <ul style="list-style-type: none"> <li>• batametša 38 go 40 le 49 go 50, hlakantšha 40 le 50 go hwetša 90, gomme o lokiše ka go ntšha 3 go tšwa go 90.</li> <li>• batametša 29 go 30, ntšha 30 go tšwa go 47 go hwetša 17, bjale lokiša ka go hlakantšha le 1 morago go hwetša 18.</li> <li>• batametša 29 go 30 gomme o batametše 38 le 39 ka bobedi go hwetša 40, bjale hlakantšha 30 le 40 le 40 go hwetša 110 gomme o lokiše ka go ntšha 4 go hwetša 106.</li> </ul>	$38 + 49$ $47 - 29$ $29 + 38 + 39$

<p>Kgopela barutwana go feleletša mafoko a ka molomo:</p> <ul style="list-style-type: none"> <li>• Go hlakantšha 18 le/go nomoro, ke hlakantšha _____ bjale ka ntšha _____ .</li> <li>• Go ntšha 18 go tšwa go nomoro ye ke ntšhago _____ bjale ka hlakantšha _____ .</li> </ul> <p>Kgopela barutwana go tlatša ka gare ga mapokisana ao a ngwadilwego letlapeng bjalo ka ge a laeditšwe.</p>	<p>Ge re hlakantšha le 38 e re fa karabo ya go swana le ye: + <input type="checkbox"/> - <input type="checkbox"/></p> <p>Ge re ntšha 49 e re fa karabo ya go swana le ye: - <input type="checkbox"/> + <input type="checkbox"/></p> <p>Ge re hlakantšha le 99 e re fa karabo ya go swana le ye: + <input type="checkbox"/> - <input type="checkbox"/></p> <p>Ge re ntšha 28 e re fa karabo ya go swana le ye: - <input type="checkbox"/> + <input type="checkbox"/></p>
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### Mešongwana ya Morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo*:

$$29 + 48 \quad 37 - 28 \quad 39 + 28 + 49$$

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl. "go 29 + 48, ke batametša 29 go 30 le 48 go 50 gomme ka hlakantšha 50 le 30 go hwetša 80, bjale ke lokiša karabo ka go ntšha 3, bjale karabo ke 57." Ge o boeletša mekgwa ya barutwana gatelela moo ba batameditšego le moo ba lokišitšego.

Barutwana bao ba palelwago ke go hlaloša mešongwana ya bona, ba kgopele go re ba go laetše mekgwa ya bona ka tsela ya go ngwala.

### Thekgo ka Bidio

Go Batametša le go Lokiša 8



[https://youtu.be/mij\\_d45rw00](https://youtu.be/mij_d45rw00)

Leina:

**Go batametša le go Lokiša: Molekwana wa ka morago ga Thutwana**

SERIPA SA 1

Metsotso e 2 go letlala le

1. $34 + 20 =$ <input type="text"/>	11. $29 + 2 =$ <input type="text"/>
2. $42 - 3 =$ <input type="text"/>	12. $68 + 10 =$ <input type="text"/>
3. $57 - 10 =$ <input type="text"/>	13. $38 + 3 =$ <input type="text"/>
4. $51 - 2 =$ <input type="text"/>	14. $145 + 30 =$ <input type="text"/>
5. $178 - 30 =$ <input type="text"/>	15. $97 - 60 =$ <input type="text"/>
6. $43 + 40 =$ <input type="text"/>	16. $48 =$ <input type="text"/> - 2
7. $29 =$ <input type="text"/> - 1	17. $79 +$ <input type="text"/> = 80
8. $37 +$ <input type="text"/> = 40	18. pedifatša 50 = <input type="text"/>
9. $97 = 100 -$ <input type="text"/>	19. pedifatša 100 = <input type="text"/>
10. $88 +$ <input type="text"/> = 90	20. $28 +$ <input type="text"/> = 30
Palomoka go 20	

**Go batametša le go Lokiša: Molekwana wa ka morago ga Thutwana**

SERIPA SA 2

Metsotso e 3 go letlakala le

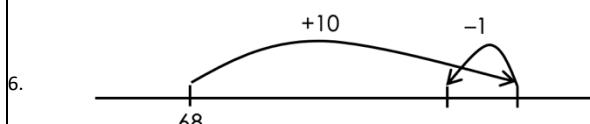
1.  $34 + 19 =$

2.  $54 - 29 =$

3.  $27 + 98 =$

4.  $234 - 99 =$

5.  $97 + 98 + 99 =$



$68 +$    $= 68 + 10 - 1$



$67 - 18 = 67 - 20 +$

8.  $56 + 28 = 56 +$    $- 2$

9.  $84 - 39 = 84 -$    $+ 1$

Dira sediko go lefokopalo leo le re fago karabo ya go swana le ye:

10.  $60 - 29$

$60 - 30 + 1$

$60 + 30 + 1$

$60 + 30 - 1$

$60 - 30 - 1$

Palomoka go 10

## PEAKANYOLESWA

### Matseno

Dithutwana tša go thoma mo go karolo ye, di lebeletše go peakanyoleswa le go mekgwa ya go fapana moo peakanyoleswa (go fetoša peakanyo ya dinomoro go palo) e ka dirago dipalo tša go hlakantšha le go atiša gore di be bonolo go di šoma. Gantši, di akaretša go hwetša kamano yeo e dirago dinomoro tša go tswalana tšeо di lego bonolo go šoma ka tšona.

Dinomoro tša go tswalana ke dinomoro tšeо di lego bonolo go šoma ka tšona, gantši di akaretša dipalokatišanetšwa tša lesome. Mešongwana ye mengwe e etwapele ke morutiši letlapeng gomme ye mengwe ke ya barutwana gore ba dire ka noši.

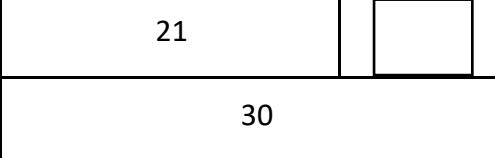
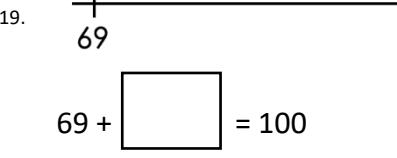
### Bokgoni bja go Gopola ka Pela

Gona le mabokgoni a mabedi a go gopola ka pela ao barutwana ba swanetšego go ithuta mokgwa wa go breakanya ka leswa:

- Go lemoga kopapanyo ya dinomoro tša go hlakantšha, goba go bopa , go dira dipalokatišanetšwa tša 10 (mohl. 6 le 4 goba 3 le 7, le 16 le 4 goba 32 le 18)
- Go lemoga kopanyo ya dinomoro tšeо di ka atišwago go dira dipalokatišanetšwa tša 10 (e.g.  $2 \times 5$ ,  $5 \times 4$ ).

Leina:

**Peakanyoleswa: Molekwana wa pele ga Thutwana****SERIPA SA 1****Metsotso e 2 go letlakala le**

Dira sediko go dinomoro tše pedi tše di dirago 10 ge di hlakane. 1. 7 4 2 3 9	11. $100 + 14 =$ <input type="text"/>
Dira sediko go dinomoro tše pedi tše di dirago 10 ge di hlakane. 2. 5 4 1 6 8	12. $2 \times 5 =$ <input type="text"/>
3. $6 +$ <input type="text"/> $= 10$	13. Dira sediko go dinomoro tše pedi tše di dirago 20 ge di hlakane. 8 14 12 3 19
4. $9 + 11 =$ <input type="text"/>	14. Dira sediko go dinomoro tše pedi tše di dirago 20 ge di hlakane. 15 4 1 16 8
5. Dira sediko go dinomoro tše pedi tše di dirago 100 ge di hlakane. 24 50 30 38 70	15. $50 \times 2 =$ <input type="text"/>
6. Dira sediko go dinomoro tše pedi tše di dirago 100 ge di hlakane. 51 17 29 49 60	16. $140 +$ <input type="text"/> $= 149$
7. $20 = 8 +$ <input type="text"/>	17. Dira sediko go dinomoro tše pedi tše di dirago 30 ge di hlakane. 18 14 12 7 19
8. <input type="text"/> $+ 3 = 20$	18. Dira sediko go dinomoro tše pedi tše di dirago 30 ge di hlakane. 10 14 9 16 13
9. 	19. 
10. $56 + 30 =$ <input type="text"/>	20. $22 + 18 =$ <input type="text"/>
Palomoka go 20	

**Peakanyoleswa: Molekwana wa pele ga Thutwana**

SERIPA SA 2

Metsotso e 3 go letlakala le

1.  $6 + 98 =$

2.  $17 + 48 + 13 =$

3.  $199 + 98 + 1 + 2 =$

4.  $37 + 56 + 13 =$

5.  $38 + 125 + 15 =$

6.  $2 \times 7 \times 5 =$

7.  $6 + 98 = 98 +$

8.  $96 + 58 + 4 = 100 +$

9.  $99 + 97 + 1 +$    $= 200$

Dira sediko go dinomoro tše pedi tše di kaonekaone tše o ka di hlakantšhago pele, go sete  
ye:

37    88    12

Palomoka go 10	
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## PEAKANYOLESWA: THUTWANA YA GO THOMA YA 1

### Motsotso wo 1 wa go šidulla monagano

Nna ke re/wena o re: Dira 10/Dira 20

- a. Morutiši o bolela nomoro ya dijiti ye tee a laetša morutwana go araba ka nomoro yeo e hlakantšhago le nomoro ye go dira 10.

Morutiši: 6	→	Morutwana 1: 4
Morutiši: 3	→	Morutwana 2: 7
Morutiši: 2	→	Morutwana 3: 8 bjalo bjalo...

- b. Morutiši o bolela nomoro magareng ga 1 le 20 gomme a laetša morutwana go araba ka nomoro yeo e hlakantšhago le yona go dira 20.

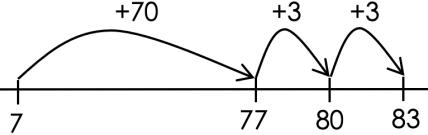
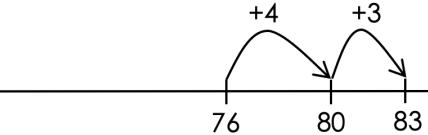
Morutiši: 12	→	Morutwana 1: 8
Morutiši: 13	→	Morutwana 2: 7
Morutiši: 5	→	Morutwana 3: 15 bjalo bjalo...

Ka moka dipapadi tše di ka bapalwa ka bobedi. Ka morago ga boitšhudullo papadi ye e a oketšwa go dira dipalokatišanetšwa tša lesome tše dingwe.

### Tatelano ya mešongwana

Mo go thutwana re tsebiša mekgwa ya peakanyoleswa.

<p>Šomiša menwana go laetša <math>5 + 3</math> bjalo ka ge e laeditšwe ka fase gomme o ngwale <math>5 + 3</math> letlapeng:</p>  <p>Morutiši: Mo ke laetša menwana ye 5 le ye 3 go feta Fapantšha diatla tša gago (lebelela ka fase)</p>  <p>Morutiši: Bjale mo ke na le <math>3 + 5</math>, eupša ke sa na le nomoro ye e swanago ya menwana ye e bontšhago. Bjale bona <math>5 + 3 = 3 + 5</math>. Ngwala <math>5 + 3 = 3 + 5</math> letlapeng.</p> <p>Dira mehlala ye mengwe o šomiša menwana o fapantšha diatla tša gago, mohl. <math>4 + 1 = 1 + 4</math>.</p> <p>Morutiši: Bjale ge re hlakantšha dinomoro, peakanyo yeo re di hlakantšhago ka go na ga e tshwenye.</p> <p>Swara mokotla wo mogolo ka seatleng se se tee, gomme o sware mokotla wo monnyane ka seatleng se sengwe.</p>	<p>Ngwala letlapeng: <math>5 + 3</math></p> <p><math>5 + 3 = 3 + 5</math></p> <p>Ngwala letlapeng: <math>7 + 76 = 76 + 7</math></p>
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 <p>Morutiši: Bjale akanya gore ke na le malekere a 7 ka gare ga mokotla wo (swara mokotla wo monnyane) le malekere a 76 ka gare ga mokotla wo (swara mokotla wo mogolo), bjale ke na le malekere a <math>7 + 76</math></p> <p>Fapantšha diatla tša gago pele o bolela:</p> <p>Morutiši: Bjale mo ke na le <math>76 + 7</math>, eupša ke sa na le nomoro ya go swana ya malekere. Bjale <math>7 + 76 = 76 + 7</math>.</p>	
<p>Morutiši : Naa go ka pela go šoma <math>7 + 76</math> goba <math>76 + 7</math>?</p> <p>Šomiša methalopalo ye mebedi go bontšha gore go hlakantšha 7 go 76 go ka pela go phala go hlakantšha 76 go 7 ka lebaka la gore go na le metabogo ye mennyanne.</p> <p>Thala methalopalo ye mebedi letlapeng go bontšha se.</p> <p><i>Ela hloko: mothalopalo o bontšha hlakantšho ya 7 ka go hlakantšha 4 go 76 go hwetša 80, bjale hlakantšha le 3. Barutwana ba bangwe ba ka kgona go hlakantšha le 7 ga tee fela. Ye ke taba ye botse. Gopotša barutwana gore ba se ke ba balela ka bo tee.</i></p>	$7 + 76$  $76 + 7$ 

### Mošongwana wa morutwana

Ke dipalo dife tša ka fase tše di swanetšego go beakanywa pele di ka šongwa? Barutwana ba ka šomiša mothalopalo go ba thuša ge ba e nyaka.

$$5 + 46 \quad 86 + 6 \quad 7 + 68 \quad 84 + 9$$

Barutwana ba swanetše go hlaloša kgopolو tša bona, mohl "go  $5 + 46$ , ke e beakanyaleswa / beakanya ka leswa go re/bolela  $46 + 5$ , bjale ke hlakantšha le 4 go 46 go hwetša 50 ka hlakantšha gape le 1 go 51 go hwetša 51"

Learners should explain their thinking, e.g. "for  $5 + 46$ , I re-order it to say  $46 + 5$ , and then I add 4 to 46 to get 50 and then add 1 to 50 to get 51."

Botša barutwana gore **ba se ke** ba balela ka bo 1.

### Thekgo ka Bidio

Peakanyoleswa 1



<https://youtu.be/FIIM2einnNo>

**Thekgo ka Bidio**

Peakanyoleswa 2



<https://youtu.be/PdZN9ZWaoDQ>

## PEAKANYOLESWA: THUTWANA YA GO THOMA YA 2

### Motsotso wo 1 wa go šidulla monagano

Kgokaganyo ya tšhomo ya dipalo ( mohl.  $8 + 2 \rightarrow 10$ ;  $18 + 2 \rightarrow 20$ ;  $28 + 2 \rightarrow 30$ )

Morutiši o ngwala tšhomo ya dipalo letlapeng:

$$8 + 2 = 10$$

Morutiši o botša barutwana ka phapošing gore re tseba gore 8 hlakantšha le 2 di lekana le 10 gomme o kgopele karabo go kgokaganyo ya tšhomo ya palo. Laetša morutwana yo mongwe yoo a swanetšego go araba.

$$\text{Morutiši: } 18 + 2 \rightarrow \text{Morutwana 1: } 20$$

$$\text{Morutiši: } 28 + 2 \rightarrow \text{morutwana 2: } 30$$

$$\text{Morutiši: } 38 + 2 \rightarrow \text{Morutwana 3: } 40 \quad \text{bjalo bjalo...}$$

### Tatelano ya mešongwana

Mo go thutwana ye re šomiša mekgwa ya peakanyoleswa.

<p>Rarolla: <math>5 + 47</math></p> <p>Morutiši: Go šoma <math>5 + 47</math> re ka thoma go 5 gomme ra tabogela pele ka 47, goba re ka thoma go 47 gomme ra tabogela pele ka 5. Ke mokgwa ofe woo o tla ba go ka pela.</p> <p>Thala methalopalo go kgetho ka bobedi letlapeng ge o nyaka go laetša gore <math>47 + 5</math> e na le metabogo ye mennyane.</p>	<p><math>5 + 47</math></p> 						
<p>Morutiši: Bjale lebelela tšhomo ya dipalo tše: Di bee ka dihlopha tše pedi: tšhomo ya dipalo moo re swanetšego go beakanya ka leswa go di dira ka pela, le tše di dulago ka mokgwa woo di lego ka gona.</p>	<p>Ngwala:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td><math>23 + 9</math></td> <td><math>15 + 47</math></td> <td><math>8 + 63</math></td> </tr> <tr> <td><math>68 + 7</math></td> <td><math>6 + 93</math></td> <td><math>57 + 26</math></td> </tr> </table> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 50px; height: 50px; display: flex; align-items: center; justify-content: center; font-size: 10px; font-weight: bold;">Peakanyo leswa</div> <div style="border: 1px solid black; border-radius: 50%; width: 50px; height: 50px; display: flex; align-items: center; justify-content: center; font-size: 10px; font-weight: bold;">O se ke wa beakanya ka leswa</div> </div>	$23 + 9$	$15 + 47$	$8 + 63$	$68 + 7$	$6 + 93$	$57 + 26$
$23 + 9$	$15 + 47$	$8 + 63$					
$68 + 7$	$6 + 93$	$57 + 26$					

### Mošongwana wa Barutwana

Bjale barutwana ba swanetše go šomiša seswantšho sa mothalopalo go dira dipalo tše di latelago. Barutwana ba swanetše go ngwala peakanyoleswa dipalo, thala seswantšho sa mothalopalo gomme o ngwale karabo:

$$8 + 63 \quad 6 + 97$$

Barutwana ba swanetše go hlaloša kgopolو ya bona, mohl. "go  $8 + 63$ , ke e beakanya ka leswa go bolela  $63 + 8$ , bjale ka hlakantšha 7 le 63 go hwetša 70 gomme ka hlakantšha le 1 go hwetša 71."

Botša barutwana gore ba se ke ba balela ka bo 1.

### PEAKANYOLESWA: THUTWANA YA GO THOMA YA 3

#### **Motsotso wo 1 wa go šidulla monagano**

Dikologa phaphoši: Dira dinomoro tsa tšwalano

Morutiši o ngwala mafokopalo a mararo a go kgokaganya letlapeng ao a dirago dinomoro tša tswalano, mohl.  $7 + 3 = 10$        $17 + 3 = 20$        $37 + 3 = 40$

Go ya go dikologa phaphoši, kgopela barutwana mafokopalo a go kgokaganya lepaterone yeo e dirago dinomoro tša tswalano. Ngwala dikanabo letlapeng.

Morutwana 1:  $47 + 3 = 50 \rightarrow$  Moruywana 2:  $87 + 3 = 90 \rightarrow$  Morutwana 3:  $107 + 3 = 110 \rightarrow$  bj.bj.

Barutwana ba bangwe ba ka re  $17 + 13 = 30$  goba  $37 + 23 = 60$ . Tše di ka ngwalwa.

#### **Tatelano ya mešongwana**

Mo go thutwana ye re hwetša kopanyo ya dinomoro tša tswalano go dira tšhomo ya palo e be bonolo ka dinomoro tharo..

<p>Rarolla: <math>26 + 17 + 4</math></p> <p>Morutiši: Re ka dira tšhomo ya dipalo ka mokgwa wo, eupša ke bona 'kopanyo' ya nomoro ya tswalano ka gare ga lefokopalo. Kopanyo ya nomoro ya tswalano e kae?</p> <p>Barutwana: <math>26 + 4 = 30</math></p> <p>Morutiši: 30 ke nomoro ya tswalano. Bjale <math>30 + 17</math> ke bokae?</p> <p>Barutwana: 47</p> <p>Hlohleletša barutwana go šomiša mekgwa ya go taboga go šoma karabo. Gopotša barutwana go re ba se ke ba balela ka bo 1.</p>	$\begin{array}{c} 26 + 17 + 4 \\ 26 + 17 + 4 \\ \swarrow \quad \searrow \\ 30 \end{array}$ $26 + 17 + 4 = 30 + 17 = 47$
<p>Palo: <math>69 + 47 + 3</math></p> <p>Morutiši: Hwetša kopanyo ya nomoro ya 'tswalano' mo go tšhomo ya palo ye.</p> <p>Barutwana: <math>47 + 3 = 50</math></p> <p>Morutiši: 50 ke nomoro ya tswalano. Bjale <math>69 + 50</math> ke bokae?</p> <p>Barutwana: 119</p> <p>Hlohleletša barutwana go šomiša mekgwa ya go taboga ka hlogo go balela karabo/ hwetša karabo go <math>69 + 50</math>. Gopotša barutwana gore ba se ke ba balela ka bo 1.</p>	$\begin{array}{c} 69 + 47 + 3 \\ 69 + 47 + 3 \\ \swarrow \quad \searrow \\ 50 \end{array}$ $69 + 47 + 3 = 69 + 50 = 119$

### **Mešongwan ya Morutwana**

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka go hwetša kopanyo ya nomoro ya tswalano pele gomme ba šome karabo:

$$25 + 18 + 5 \quad 44 + 38 + 12 \quad 3 + 65 + 27$$

Barutwana ba swanetše go hlaloša kgopolotša bona, mohl. "go  $25 + 18 + 5$ , ke hlakantšha  $5$  go  $25$  go hwetša  $30$ , bjale ke hlakantšha  $18$  go  $30$  go hwetša  $48$ ."

Botša barutwana gore ba se ke ba balela ka bo 1.

### **Thekgo ka Bidio**

Peakanyoleswa 3



<https://youtu.be/SdnTj8PZX-o>

**Thekgo ya Bidio**

Peakanyoleswa 4



[https://youtu.be/F\\_1UiS4QAQ4](https://youtu.be/F_1UiS4QAQ4)

**PEAKANYOLESWA: THUTWANA YA GO THOMA YA 4****Motsotso wo 1 wa go šidulla Monagano**

Ke re/wena o re: Dira 30/Dira 50

**Tatelano ya mešongwana**

Mo go thutwana ye re itlwaetša go hwetša kopanyo ya nomoro ya go tswalana ka gare ga tšomo ya dipalo.

<p>Rarolla: <math>15 + 47 + 5</math>          Morutiši: Lehono re ya go lebelela kopanyo ya dinomoro tša go tswalana. Naa go na le nomoro ya tswalano go tšomo ya palo letlapeng?          Barutwana: Ee, <math>15 + 5 = 20</math>.          Morutiši: Bjale <math>20 + 47 = \text{eng?}</math>          Barutwana: 67</p>	$  \begin{array}{c}  15 + 47 + 5 \\  \diagdown \quad \diagup \\  20 \\  15 + 47 + 5 = 20 + 47 \\  = 67  \end{array}  $
<p>Rarolla: <math>38 + 27 + 12</math>          Morutiši: Hwetša nomoro ya tswalano ya go kopanya.          Barutwana: <math>38 + 12 = 50</math>.          Morutiši: Bjale <math>50 + 27 = \square ?</math>          Barutwana: 77</p>	$  \begin{array}{c}  38 + 27 + 12 \\  \diagdown \quad \diagup \\  50 \\  38 + 27 + 12 = 50 + 27 \\  = 77  \end{array}  $
<p>Morutiši: Ke dinomoro dife tše di ka ya go/ tsentšhwago ka gare ga lepokisi go dira nomoro ya tswalano ya go kopanya?          Barutwana ba swanetše go fa dinomoro tše di felelago ka 2 go kopanya le 38 go dira nomoro ya tswalano, mohl. 2, 32, 82 bjalo bjalo. Ba ka fa dinomoro tše di felelago ka 3 go kopanya le 27 go dira nomoro ya tswalano, mohl. 3, 13, 53 bjalo bjalo.</p>	$  \begin{array}{ll}  38 + 27 + \square & \\  38 + 27 + \boxed{32} & 38 + 27 + \boxed{13} \\  38 + 27 + \boxed{2} & 38 + 27 + \boxed{53}  \end{array}  $

**Mešongwana ya barutwana**

Bjale barutwana ba swanetše go ngwala dinomoro tše hlano tša go fapano tše di ka ya go ka gare ga lepokisana go kopanya nomoro ya tswalalano.

$$24 + 49 + \square \quad 33 + \square + 29$$

Barutwana ba swanetše go hlaloša kgopolو tša bona, mohl. "go 24 + 49, nka ngwala nomoro yeo e felelago ka 1 go kopanya le 49 goba nka ngwala nomoro yeo e felelago ka 6 go kopanya le 24."

**Mošomo wa gae: Letlakalatšomo la 1**

Mafelelong a lenaneo la thutwana ya lehono, efa barutwana letlakalatšomo la 1

Ga se wa swanela go beela barutwana nako ge ba dira letlakalatšomo le. Maikemišetšo ke go fa barutwana mešongwana ye mengwe ye ba e dirilego ka hlogo

Leina:

**Peakanyoleswa: Letlakalatshomo la 1**

<p>1. Dira sediko go dinomoro tše pedi tše di dirago 10 ge dihlakane. 8    6    2    7    5</p>	<p>11. <math>100 + 57 = \boxed{\phantom{00}}</math></p>												
<p>2. Dira sediko go dinomoro tše pedi tše di dirago 10 ge dihlakane. 7    5    4    6    9</p>	<p>12. <math>2 \times 6 = \boxed{\phantom{00}}</math></p>												
<p>3. <math>8 + \boxed{\phantom{00}} = 10</math></p>	<p>13. Dira sediko go dinomoro tše pedi tše di dirago 30 ge dihlakane. 9    16    21    7    12</p>												
<p>4. <math>7 + 13 = \boxed{\phantom{00}}</math></p>	<p>14. Dira sediko go dinomoro tše pedi tše di dirago 30 ge dihlakane. 17    5    13    8    12</p>												
<p>5. Dira sediko go dinomoro tše pedi tše di dirago 100 ge dihlakane. 36    59    64    45    73</p>	<p>15. <math>60 \times 2 = \boxed{\phantom{00}}</math></p>												
<p>6. Dira sediko go dinomoro tše pedi tše di dirago 100 ge dihlakane 45    87    37    55    62</p>	<p>16. <math>120 + \boxed{\phantom{00}} = 128</math></p>												
<p>7. <math>20 = 8 + \boxed{\phantom{00}}</math></p>	<p>17. Dira sediko go dinomoro tše pedi tše di dirago 20 ge dihlakane 11    14    6    7    19</p>												
<p>8. <math>\boxed{\phantom{00}} + 6 = 20</math></p>	<p>18. Dira sediko go dinomoro tše pedi tše di dirago 20 ge dihlakane 15    12    8    4    11</p>												
<p>9.</p> <table border="1" style="width: 100%; height: 50px;"> <tr> <td style="width: 60%;">34</td> <td style="width: 40%; border-left: none;"><input type="text"/></td> </tr> <tr> <td colspan="2" style="height: 40px;"></td> </tr> <tr> <td colspan="2" style="height: 40px; text-align: center;">40</td> </tr> </table>	34	<input type="text"/>			40		<p>19.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="border: none; padding-right: 10px;"><math>87 +</math></td> <td style="border: none; padding-right: 10px;"><input type="text"/></td> <td style="border: none; padding-right: 10px;">+</td> <td style="border: none; padding-right: 10px;"><hr/></td> <td style="border: none; padding-right: 10px;">87</td> <td style="border: none; padding-right: 10px;">= 100</td> </tr> </table>	$87 +$	<input type="text"/>	+	<hr/>	87	= 100
34	<input type="text"/>												
40													
$87 +$	<input type="text"/>	+	<hr/>	87	= 100								
<p>10. <math>26 + 12 = \boxed{\phantom{00}}</math></p>	<p>20. <math>24 + 16 = \boxed{\phantom{00}}</math></p>												

### **Dintlha tša morutiši**

Mo o ka ngwala dintlha mabapi le thutwana le gore naa ke barutwana bafe bao ba nyakago thušo ka mekgwa ya go fapanā. O ka dira dintlha tše dingwe tše o nyakago go di tšweletša ka thutwana ya go thoma ya go latela.

**Thekgo ka Bidio**

Peakanyoleswa 5



<https://youtu.be/dz79xkmVQy8>

## PEAKANYOLESWA: THUTWANA YA GO THOMA YA 5

### Motsotso wo 1 wa go šidulla Monagano

Hwetša nomoro ya tswalano ya go kopanya

Morutiši o ngwala letlapeng:

23    2    8    25    36    17    21    19    44

Morutiši o bolela nomoro ye nngwe, mohl. 13, gomme barutwana ba swanetše go topa ye nngwe ya dinomoro letlapeng yeo e tla dirago nomoro ya tswalano ge e hlakantšwa go nomoro, mohl. 17 e ka dira nomoro ya tswalano le 30 ge e hlakantšwa le 13.

### Tatelano ya mešongwana

Mo go thutwana ye re hwetša kopanyo ya dinomoro ge re hlakantšha dinomoro tše dintši.

<p>Rarolla: <math>7 + 5 + 3 + 1 + 8 + 5 + 2</math></p> <p>Morutiši: Hwetša nomoro ya tswalano ya go kopanya?</p> <p>Morutwana: <math>7 + 3 = 10; 5 + 5 = 10; 8 + 2 = 10</math></p> <p>Swaya kopanyo ya dinomoro letlapeng ge barutwana ba di bolela.</p> <p>Morutiši: Bjalo <math>7 + 5 + 3 + 1 + 8 + 5 + 2</math> ke <math>10 + 10 + 10 + 1</math> e lego 31.</p>	<p><math>7 + 5 + 3 + 1 + 8 + 5 + 2</math></p> <p>=31</p>
<p>Rarolla: <math>18 + 4 + 3 + 2 + 17 + 6 + 9</math></p> <p>Morutiši: Hwetša nomoro ya tswalano ya go kopanya?</p> <p>Barutwana: <math>18 + 2 = 20; 4 + 6 = 10; 3 + 17 = 20</math></p> <p>Swaya kopanyo ya dinomoro letlapeng ge barutwana ba di bolela.</p> <p>Morutiši: Bjale <math>18 + 4 + 3 + 2 + 17 + 6 + 9</math> ke <math>20 + 20 + 10 + 9</math> e lego 59</p>	<p><math>18 + 4 + 3 + 2 + 17 + 6 + 9</math></p> <p>=59</p>

### Mešongwana ya Morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka *hlogo* ka go hwetša kopanyo ya nomoro ya tswalano ya go kopanya le go šoma dipalo:

$$6 + 3 + 2 + 4 + 9 + 8 \quad 27 + 32 + 16 + 3 + 8$$

Barutwana ba swanetše go hlaloša kgopolole tša bona, mohl. "go mohlala wa mathomo, ke hlakantšha 6 go 4 go hwetša 10, bjale ke hlakantšha 3 le 9 go hwetša 12 le 10 hlakantšha le 10 hlakantšha le 12 ke 32."

Botša barutwana gore ba se ke ba balela ka bo 1.

PEAKANYOLESWA: THUTWANA YA GO THOMA YA 6

**Motsotso wo 1 wa go šidulla monagano**

## Pop-Fizz: Atiša ka 5

Morutiši o re ‘pop’ gomme barutwana ba re ‘fizz’; bjale morutiši o bolela nomoro, barutwana ba araba ka nomoro ya go atiša ka 5.

Morutiši: pop	→	Barutwana : fizz
Morutiši: 2	→	Barutwana: 10
Morutiši: pop	→	Barutwana: fizz
Morutiši: 3	→	Barutwana: 15
Morutiši: pop	→	Barutwana: fizz
Morutiši: 8	→	Barutwana: 40
Morutiši: pop	→	Barutwana: fizz
Morutiši: 9	→	Barutwana: 45
		bjalo bjalo...

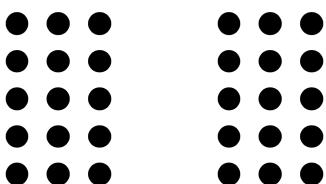
Papadi ye e ka ralokwa go itlwaetša tafola ya katišo. Morutiši o nyaka fela go laetša gore na ke nomoro efe yeo barutwana ba swanetšego go atiša ka yona mathomong a papadi.

## Tatelano ya mešongwana

Mo go thutwana ye re tšweletša peakanyoleswa ka katišo.

*Ela hloko: Methaladi le dikholumo tša marontho di gona ka go puku ya Kgatišo-kgolo ya Mongwalo.*

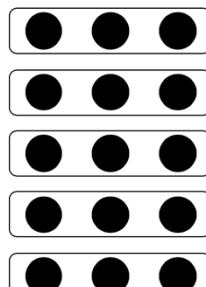
Kgomaretša dikgetlo tše pedi tša matlakala a go ba le methaladi ye 5 ya marontho a mararo letlapeng. Dira qo re barutwana ba dumele qore di a swana.



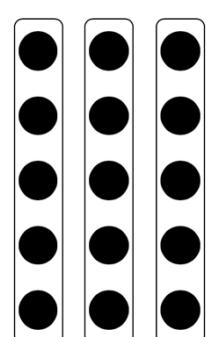
Ge o šomiša sekgetlo sa mathomo sa letlakala, šupa gore re na le marontho a 5 ga raro ka go dira sediko go mothaladi wo mongwe le wo mongwe, gomme o nwale  $5 \times 3$  letlapeng.

Morutiši: Ka kakaretšo re a bona gore go na le 3, 6, 9, 12, 15. (šupa go mothaladi wo mongwe le wo mongawe qe o balela.

Ge o šomiša sekgetlo sa letlakala sa bobedi ka peakanyo ya 5 ka methaladi ye 3, šupa gore re na le marontho a 3 ka 5 ka go dira sediko go kholomo ye nngwe le ye nngwe qomme o ngwale 3 x 5.



5 x 3



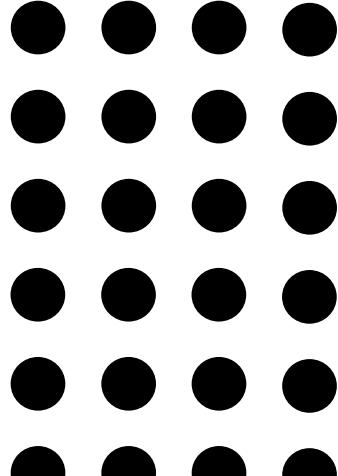
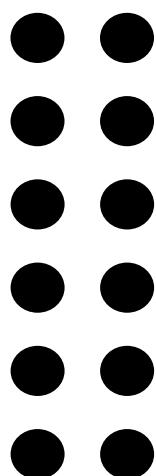
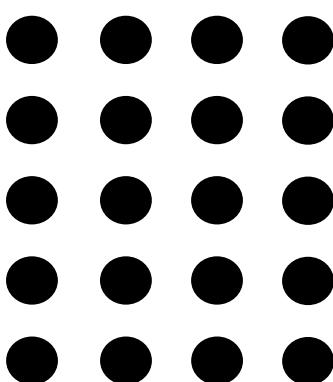
3 x 5

$$5 \times 3 = 3 \times 5$$

hlakantšha, re ka fetola peakanyo ka katišo.	
<p>Kgomaretša sekgetlo sa letlakala sa methaladi ye 10 ya marontho a 3.</p> <p>Morutiši: A re balele gore na go na le palomoka ya marontho a makae (re šupa go methaladi).</p> <p>Barutwana: 3, 6, 9, 12, 15, 18, 21, 24, 27, 30.</p> <p>Morutiši: A re fetole peakanyo gomme re balele ka tsela ye (o šupa go dikholomo)</p> <p>Barutwana: 10, 20, 30</p> <p>Morutiši: Naa go ka pela go balela tše ka moka (o bontšha go ya fase dipalokatišanetšwa tša 3) goba balela tše (bontšha ka go dipalokatišanetšwa tša 10)?</p> <p>Barutwana ba swanetše go dumelana gore go bonolo e bile go ka pela go dira 10, 20, 30.</p>	<p style="text-align: center;">3 6 9 12 15 18 21 24 27 30</p> <p style="text-align: center;">10    20    30</p>

**Mošongwana wa morutwana**

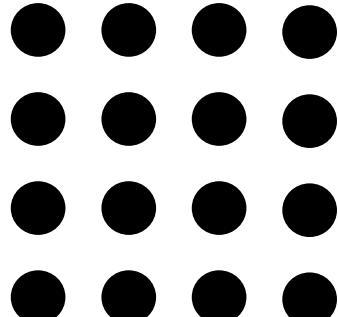
Bjale barutwana ba swanetše go ngwala tšhomo ya dipalo tša katišo ya pedi tše di ka dirwago go šoma nomoro ya marontho go seswantšho se sengwe le se sengwe sa ka fase. Barutwana ba swanetše go kgetha gore na ke tšhomo efe ya palo yeo e lego bonolo go bona go e dira. Peakanyo ye ya marontho e ka gare ka puku ya Kgatišo-Kgolo ya mongwalo e bile e ka šomišwa letlapeng.

**Thekgo ka Bidio**

Peakanyoleswa 6



<https://youtu.be/cCVo9O9ibaE>



**Thekgo ka Bidio**

Peakanyoleswa 7



<https://youtu.be/ZMaAhLcdAQo>

## PEAKANYOLESWA: THUTWANA YA GO THOMA YA 7

### Motsotso wo 1 wa go šidulla Monagano

Pop-Fizz: Atiša ka 10

### Tatelano ya mešongwana

Mo go thutwana ye re hwetša kopanyo ya dinomoro tša tswalano ka gare ga dipalo tša katišo ka dinomoro tše tharo.

<p>Rarolla: <math>2 \times 7 \times 5</math></p> <p>Morutiši: Re ka dira dipalo tše ka tsela ye, efela ke bona kopanyo ya nomoro ya tswalano. Naa nomoro ya kopanyo ya nomoro ya tswalano e kae?</p> <p>Barutwana: <math>2 \times 5 = 10</math></p> <p>Morutiši: 10 ke nomoro ya tswalano. A re šomiše seo go dira palo.</p> <p>Ngwala <math>2 \times 7 \times 5 = 2 \times 5 \times 7</math> letlapeng.</p> <p>Morutiši: Re a tseba <math>2 \times 5 = 10</math>. <math>10 \times 7</math> ke eng?</p> <p>Theeletša barutwana bao ba tsebago karabo ye, goba yo a ka balelago ka go taboga ka bo 10. Gopotša barutwana gore ba se ke ba balela ka bo 1.</p> <p>Barutwana: 70</p>	$\begin{array}{c} 2 \times 7 \times 5 \\ \swarrow \quad \searrow \\ 10 \end{array}$ $\begin{array}{r} 2 \times 7 \times 5 = 10 \times 7 \\ \quad \quad \quad = 70 \end{array}$
---	--

### Tatelano ya mešongwana

Barutwana ba swanetše go šomiša kopanyo ya dinomoro tša go tswalana go araba dipalo tše di latelago:

$$2 \times 6 \times 5 \quad 5 \times 8 \times 2 \quad 9 \times 2 \times 5$$

Barutwana ba swanetše go hlaloša kgopolohloka bona, mohl. "go  $2 \times 6 \times 5$ , ke tseba gore 2 ge e atišitšwe ka 5 ke lesome, le 10 ge e atišitšwe ka 6 ke 60, bjale karabo ke 60."

*Ela hloko: Barutwana ba ka tla ka mekgwa ye mengwe go dira tše ka pela. Mohlala, morutwana a ka dira  $2 \times 6 \times 5$  ka go bolela gore  $6 \times 5 = 30$  gomme 30 ga bedi ke 60. Ye ke palo ye nngwe ye e šomago ga botse.*

### Mošomo wa gae: Letlakalatšhomo la 2

Mafelelong a lenaneo la thutwana ya lehono, efa barutwana letlakalatšhomo la 2.

Ga se wa swanela go beela barutwana nako ge ba dira letlakalatšhomo le. Maikemišetšo ke go fa barutwana mešongwana ye mengwe ye ba e dirilego ka hlogo.

Leina:

**Peakanyoleswa: Letlakalatšholmo la 2**

1.  $8 + 94 =$

2.  $11 + 27 + 19 =$

3.  $99 + 198 + 2 + 1 =$

4.  $48 + 23 + 12 =$

5.  $56 + 115 + 25 =$

6.  $2 \times 9 \times 5 =$

7.  $3 \times 10 = 10 \times$

8.  $9 + 93 = 93 +$

9.  $91 + 37 + 9 = 100 +$

10.  $99 + 96 + 1 +$   = 200

Dira sediko go dinomoro tše pedi tše di kaonekaone tše o ka di hlakantšhago pele mo go  
11. sete ye:

74    26    83

Dira sediko go dinomoro tše pedi tše di kaonekaone tše o ka di hlakantšhago pele mo go  
12. sete ye:

2    38    5

### **Dintlha tša morutiši**

Mo o ka ngwala dintlha mabapi le thutwana le gore naa ke barutwana bafe bao ba nyakago thušo ka mekgwa ya go fapanā. O ka dira dintlha tše dingwe tše o nyakago go di tšweletša ka thutwana ya go thoma ya go latela.

**Thekgo ka Bidio**

Peakanyoleswa 8



<https://youtu.be/Sh0e84cPf2U>

**PEAKANYOLESWA: THUTWANA YA GO THOMA YA 8****Motsotso wo 1 wa go šidulla Monagano**

Pop-Fizz: Atiša ka 5

Pop-Fizz: Atiša ka 10

**Tatelano ya mešongwana**

Mo go thutwana ye re hwetša kopanyo ya dinomoro tša tswalano go katišo.

<p>Rarolla: <math>4 \times 9 \times 5</math></p> <p>Morutiši: Re ka dira dipalo tše ka mokgwa wo, efela ke bona kopanyo ya dinomoro tša go tswalana. Kopanyo ya nomoro ya tswalano e kae?</p> <p>Barutwana: <math>4 \times 5 = 20</math></p> <p>Morutiši: 20 ke nomoro ya tswalano. A re šomišeng seo go beakanya palo ka leswa</p> <p>Ngwala <math>4 \times 9 \times 5 = 4 \times 5 \times 9</math> letlapeng.</p> <p>Morutiši: Re ka beakanya le go ngwala se bjalo ka <math>4 \times 5 \times 9</math>. Re tseba gore <math>4 \times 5 = 20</math>. A re šome <math>20 \times 9</math> ka go balela ka bo 20.</p> <p>Barutwana: 20, 40, 60, 80, 100, 120, 140, 160, 180.</p>	<p><math>4 \times 9 \times 5</math></p> <p>↓</p> <p>20</p> <p><math>4 \times 9 \times 5 = 4 \times 5 \times 9</math></p> <p><math>= 20 \times 9</math></p> <p><math>= 180</math></p>
---	--

**Mošongwana wa Morutwana**

Bjale barutwana ba swanetše go šomiša kopanyo ya dinomoro tša tswalano le peakanyoleswa go araba ditharollo/ mathata/dipalo tše di latelago:

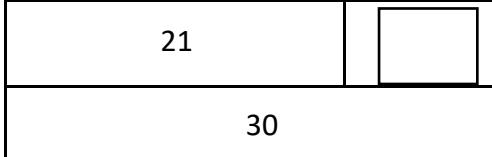
$$4 \times 3 \times 5 \quad 4 \times 6 \times 5 \quad 5 \times 7 \times 4$$

Barutwana ba swanetše go hlaloša kgopolole tša bona, mohl. “go  $4 \times 3 \times 5$ , Ke tseba gore 4 e atitšwe ka 5 ke masomepedi, le 20 e atišitšwe ka 3 ke 60, bjale karabo ke 60.”

*Ela hloko: Barutwana ba ka tla ka mekgwa ye mengwe go dira se ka pela. Mohlala, morutwana a ka dira  $4 \times 3 \times 5$  ka go bolela gore  $4 \times 3 = 12$  le  $12 \times 5 = 60$ . Ye ke palo ye nngwe ye e šomago ga botse.*

Leina:

**Peakanyoleswa: Molekwana wa ka morago ga Thutwana****SERIPA SA 1****Metsotso e 2 go letlakala le**

Dira sediko go dinomoro tše pedi tše di dirago 10 ge di hlakane. 1. 7 4 2 3 9	11. $100 + 32 =$ <input type="text"/>
Dira sediko go dinomoro tše pedi tše di dirago 10 ge di hlakane. 2. 5 4 1 6 8	12. $2 \times 5 =$ <input type="text"/>
3. $7 +$ <input type="text"/> $= 10$	13. Dira sediko go dinomoro tše pedi tše di dirago 20 ge di hlakane. 8 14 12 3 19
4. $9 + 11 =$ <input type="text"/>	14. Dira sediko go dinomoro tše pedi tše di dirago 20 ge di hlakane. 15 4 1 16 8
5. Dira sediko go dinomoro tše pedi tše di dirago 100 ge di hlakane. 24 50 30 38 70	15. $50 \times 2 =$ <input type="text"/>
6. Dira sediko go dinomoro tše pedi tše di dirago 100 ge di hlakane. 51 17 29 49 60	16. $140 +$ <input type="text"/> $= 149$
7. $20 = 8 +$ <input type="text"/>	17. Dira sediko go dinomoro tše pedi tše di dirago 30 ge di hlakane. 18 14 12 7 19
8. <input type="text"/> $+ 3 = 20$	18. Dira sediko go dinomoro tše pedi tše di dirago 30 ge di hlakane. 10 14 9 16 13
9. 	19. $69 +$ <input type="text"/> $= 100$ 
10. $56 + 30 =$ <input type="text"/>	20. $22 + 18 =$ <input type="text"/>
Palomoka go 20	

**Peakanyoleswa: Molekwana wa ka morago ga Thutwana****SERIPA SA 2****Metsotso e 3 go letlakala le**

1.  $8 + 97 =$

2.  $27 + 48 + 23 =$

3.  $199 + 98 + 1 + 2 =$

4.  $37 + 56 + 13 =$

5.  $38 + 125 + 15 =$

6.  $2 \times 7 \times 5 =$

7.  $8 + 97 = 97 +$

8.  $96 + 58 + 4 = 100 +$

9.  $99 + 97 + 1 +$    $= 200$

10. Dira sediko go dinomoro tše pedi tše kaonekaone tše o ka di hlakantšhago pele, go sete ye:

43    36    14

Palomoka go 10	
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## KGOKAGANYO

### **GO HLAKANTSHA LE GO NTSHA**

#### **Matseno**

Mo go dithutwana tša go thoma go lebeletšwe go tswalanyo magareng ga go hlakantsha le go ntsha. Re šomiša tswalanyo go fetola dipalo go tšwa go hlakantšho go ya go ntšho, le go ntsha go ya go go hlakantšha, bjalo ka mekgwa ya tšomo ya palo. Se se akaretša go kwešišo ya tswalanyo magareng ga maswao a a mabedi le go kwešiša mafokopalo a tswalanyo magareng ga dinomoro tše tša go hlakantsha le go ntsha. Ye mengwe ya mešongwana ke yeo e etwago pele ke morutiši letlapeng gomme ye mengwe ya mešongwana ke ya barutwana go e dira ka bo noši.

#### **Bokgoni bja go Gopola ka Pela**

Go na le mabokgoni a go gopola ka pela a mararo ao barutwana ba swanetšego go ithuta tswalanyo magareng a go hlakantsha le go ntsha bjalo ka mekgwa ya palo.

- Go hlakantsha dinomoro tša dijiti e tee go dinomoro tša dijiti tše pedi, go akaretša le go kgaoletša ka masome (mohl. 28 + 4; 39 + 2)
- Go ntsha dinomoro tša dijiti e tee go tšwa go dinomoro tša dijiti tše pedi, go akaretša le go kgaoletša ka masome (mohl. 33 – 5; 52 – 4)
- Go šoma ka mokgwa wa maleba le ka thelelo ka ditaekramo tša para go hwetša mokgwa wo bonolo wa go rarolla tswalanyo ya tšomo ya palo.

Leina:

**Kgokaganyo ya go Hlakantšha le go Ntšha: Molekwana wa pele ga Thutwana**

SERIPA SA 1

Metsotso e 2 go letlakala le

1.  $88 + \boxed{\quad} = 92$

Tlatša 15, 5 le 20 ka go feleletša mafokopalo a ka fase (11 - 14).

15	5
20	

2.  $42 - 4 = \boxed{\quad}$

11.  $\boxed{\quad} - 5 = \boxed{\quad}$

3.  $86 + 5 = \boxed{\quad}$

12.  $\boxed{\quad} + 5 = \boxed{\quad}$

4.  $17 + \boxed{\quad} = 23$

13.  $\boxed{\quad} - \boxed{\quad} = 5$

5.  $199 + \boxed{\quad} = 201$

14.  $5 + \boxed{\quad} = \boxed{\quad}$

Tlatša dinomoro tše, tše tharo ka gare ga mapokisana a maleba:

$11 - 9 = 2.$

15.  $99 + \boxed{\quad} = 102$

6.  $\boxed{\quad} \quad \boxed{\quad}$

16.  $21 - \boxed{\quad} = 19$

7.  $\boxed{\quad}$

17.  $37 + 6 = \boxed{\quad}$

8.  $302 - 5 = \boxed{\quad}$

18.  $47 + \boxed{\quad} = 55$

9.  $29 + \boxed{\quad} = 34$

19.  $34 - \boxed{\quad} = 29$

10.  $91 - \boxed{\quad} = 89$

20.  $75 + \boxed{\quad} = 82$

Palomoka go 20

**Kgokaganyo ya go Hlakantšha le go Ntšha: Molekwana wa pele ga Thutwana**

SERIPA SA 2

Metsotso e 3 go letlakala le

1.  $92 - 88 = \boxed{\phantom{00}}$

2.  $4 + \boxed{\phantom{00}} = 402$

3.  $\boxed{\phantom{00}} - 82 = 5$

4.  $82 - 75 = \boxed{\phantom{00}}$

5.  $201 - 199 = \boxed{\phantom{00}}$

6.

$\boxed{\phantom{00}}$	99
102	

27 + 15 = 42      42 + 15 = 57

7.  $42 - 15 = \boxed{\phantom{00}}$

24 + 18 = 42      24 + 42 = 66

8.  $\boxed{\phantom{00}} + 24 = 42$

Šomiša dinomoro tše tharo tša ka fase ka mekgwa e mebedi ya go fapano ya go ntšha.

$83 + 37 = 120$

9.  $\boxed{\phantom{00}} - \boxed{\phantom{00}} = \boxed{\phantom{00}}$

10.  $\boxed{\phantom{00}} - \boxed{\phantom{00}} = \boxed{\phantom{00}}$

Palomoka go 10

**KGOKAGANYO YA GO HLAKANTSHA LE GO NTSHA: THUTWANA YA GO THOMA YA 1****Motsotso wo 1 wa go šidulla monagano**

Go hlakantsha ka pela: Dinomoro tša dijiti e 1 le dinomoro tša dijiti tše 2

Kgetha nomoro ya dijiti tše 2 gomme o kgopele barutwana gore ba e hlakantšhe le nomoro ya go fapania ya dijiti e 1.

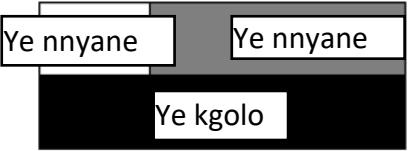
Morutiši: 29 + 4	→	Barutwana: 33	
Morutiši: 29 + 2	→	Barutwana: 31	
Morutiši: 29 + 5	→	Barutwana: 34	
Morutiši: 29 + 7	→	Barutwana: 36	bjalo bjalo...
Morutiši: 37 + 5	→	Barutwana: 42	
Morutiši: 37 + 9	→	Barutwana: 46	
Morutiši: 37 + 6	→	Barutwana: 43	
Morutiši: 37 + 3	→	Barutwana: 40	bjalo bjalo...

*Ela hloko: Barutwana ba ka balela go ya godimo le go ya fase ka pela ge ba hlakantšha goba ba ntšha 2, 3, goba 4, efela ba swanetše go hlohlloletšwa go šomiša mekgwa ya go kgaoletša ka lesome ka go hlakantšha goba go ntšha 5, 6, 7, 8, le 9 o šomiša seswantšho kgopololo sa mothalopalo.*

**Tatelano ya mošongwana**

Mo go thutwana ye re šomiša ditaekramo tša para go kgokaganya go hlakantsha le go ntšha .

*Ela hloko: Taekramo ya para ya boso, tshehla le bošweu e a hwetšagala ka gare ga puku ya Kgatiso Kgolo ya mongwalo.*

Morutiši: Ka go lapa la taekramo ya para, dipara tše pedi ka moka ge di hlakane di lekana le para ye kgolo ka bogolo. Ge re lebelela bogolo bja dipara tša go fapania ka mebala (šweu, tshehla le boso) re bona gore botelele bja di para tše nnyane tše 2 ka moka ge di hlakane di lekana le botelele bja para ye kgolo.	Kgomaretša taekramo ya para ya ka fase letlapeng gomme o kgomaretše maina/ mantšu (e kgolo, ye nnyane, ye nnyane) ka fase ga taekramo.
Morutiši: Para e kgolokgolo (ntsho) re efa leina la ‘Ye kgolo’ (kgomaretša leina la ‘Ye kgolo’ godimo ga para ye ntsho), gomme go dipara tše nnyane, ye nngwe le ye nngwe re efa leina la ‘ye nnyane’ (kgomaretša maina a ‘Ye nnyane’ godimo ga para e nnyane).	 <div style="display: flex; justify-content: space-around;"> <div>Ye kgolo</div> <div>Ye nnyane</div> <div>Ye nnyane</div> </div>
Morutiši: Botelele bja ye kgolo bo lekana le tše pedi tše nnyane di hlakane.	 <div style="display: flex; justify-content: space-around;"> <div>Ye nnyane</div> <div>Ye nnyane</div> <div>Ye kgolo</div> </div> <p>Ye kgolo = ye nnyane + ye nnyane</p>

Ngwala letlapeng.	
<p>Morutiši: Mphe mafokopalo a go hlakantšha le a go ntšha ka taekramo ya para?</p> <p>Morutwana: Ye kgolo – Ye nnyane = Ye nnyane,bj,bj.</p> <p>Ngwala seo morutwana a se bolelago ga tee ka nako, kgopela barutwana go amogela goba go ganetša tseo di fiwago (ka mabaka)</p> <p>Morutiši: Le reng ka 'Ye nnyane – Ye kgolo =Ye nnyane? ( e ngwale)</p> <p>Barutwana ba bolela ge e le gore lefoko leo ke nnete goba maaka. Kgopela barutwana go fa mabaka.</p> <p>Thala mothalo ka godimo ga mafoko ao barutwana ba dumelelanego ka ona gore ke a maaka (goba ga se a nepagala). Ngwala 'maaka' kgauswi le le ona.</p> <p>Dira bjalo le go 'Ye nnyane + Ye kgolo = Ye nnyane'</p>	<p>Ye kgolo – Ye nnyane = Ye nnyane</p> <p>Ye nnyane + Ye nnyane = Ye kgolo</p> <p>YE nnyane – Ye kgolo = Ye nnyane?</p> <p><del>Ye nnyane – Ye kgolo = Ye nnyane maaka</del></p> <p><del>Ye nnyane + Ye kgolo = Ye nnyane maaka</del></p>

### Mešongwana wa Morutwana

Bjale barutwana ba swanetše go leka letlakatšhomo leo ba le filwego la Thutwana ya go Thoma ya 1.

### Thekgo ka Bidio

Kgokaganyo ya go Hlakantšha le go Ntšha 1



<https://youtu.be/nha592FZEAc>

**Kgokaganyo ya go Hlakantšha le go Ntšha Thutwana ya go Thoma ya 1:  
Mošongwana wa morutwana**

Ngwala mantšu a, Ye kgolo, Ye nnyane le Ye nnyane kgauswi le para ya maleba ka gare ga taekramo ka fase:

3	6
9	

Beya leswao le (✓) kgauswi le mafokopalo a go nepagala, gomme o beye sefapano kgauswi le mafokopalo ao e le go a maaka /ao a sa nepagalago (X):

$$3 + 6 = 9 \quad 6 - 3 = 9$$

$$9 = 6 + 3 \quad 9 - 3 = 6$$

$$6 + 9 = 3 \quad 3 = 9 - 6$$

$$6 + 3 = 9 \quad 9 - 6 = 3$$

$$3 + 9 = 6 \quad 3 - 6 = 9$$

## KGOKAGANYO YA GO HLAKANTSHA LE GO NTSHA: THUTWANA YA GO THOMA

### YA 2

#### Motsotso wo 1 wa go šidulla Monagano

Go ntsha ka pela: Dinomoro tša dijiti e 1 go tšwa go dinomoro tša dijiti tše 2

Kgetha nomoro ya dijiti tše 2 gomme o kgopele barutwana go ntsha nomoro ya dijiti e 1 ya go fapano.

Morutiši: 71 – 1	→	Barutwana: 70	
Morutiši: 71 – 3	→	Barutwana: 68	
Morutiši :71 – 5	→	Barutwana: 66	
Morutiši: 71 – 7	→	Barutwana: 64	bjalo bjalo...
Morutiši: 42 – 2	→	Barutwana: 40	
Morutiši: 42 – 4	→	Barutwana: 38	
Morutiši: 42 – 6	→	Barutwana: 36	
Morutiši: 42 – 9	→	Barutwana: 33	bjalo bjalo...

#### Tatelano ya mešongwana

Mo go thutwana ye re bontšha tswalano ya go hlakantsha le go ntsha magareng ga dinomoro tša dinomoro tša lapa.

Morutiši: O ka nagana gore dinomoro tše 4, 6, le 10 di ka kgokaganywa bjang?	Ngwala 4, 6 le 10 letlapeng. 4      6      10 nne le tshela di dira lesome lesome ntsha tshela e lekana le nne $4 + 6 = 10$ $6 + 4 = 10$ $10 - 6 = 4$ $10 - 4 = 6$				
Barutwana ba ka šišinya tswalanyo go swana le ‘nne le tshela ke lesome’, goba ‘ge re tšea nne go tšwa go lesome re hwetša tshela’, or ‘4 + 6 =10’ goba ‘10 – 4 = 6’. Ngwala seo morutwana a se filego ga tee, o kgopela barutwana go bolela ge e le gore dikakanyo ke tša nnene goba ke tša maaka (ka mabaka). Phumola tšeob a di filego tša maaka.					
Morutiši: Dinomoro tše 4, 6 le 10 di kgokanywa ge re hlakantsha le ge re ntsha. Di ka gopolwa bjalo ka <b>dinomoro tša lapa</b> . Taekramo ya para ka go dinomoro tša lapa, dinomoro tše pedi tše nnyane ka moka, di lekana le nomoro ye kgolo. Mo botelele bja 4 + 6 (tše pedi tše nnyane ka lapeng) di lekana le botelele bja 10 (ye kgolo ka lapeng)					
Thala taekramo ya para.	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 50px; height: 20px;"></td> <td style="width: 50px; height: 20px;"></td> </tr> <tr> <td colspan="2" style="height: 20px; vertical-align: middle; text-align: center;"><math>10</math></td> </tr> </table>			$10$	
$10$					
Morutiši : Dinomoro tše dingwe tše tharo tšeob di kgokantšwego ge re hlakantsha le ge re ntsha ke 8, 3, le 5. Dinomoro tše ke tše					

<p>dingwe tša <b>dinomoro tša lapa</b>. Naa dinomoro tše di kgokantšwa bjang ka gare ga taekramo ya para?</p>	<p>Ngwala 8, 3 le 5 letlapeng. 8      3      5</p>										
<p>Thala taekramo ya para ye e sa ngwalwago selo bjalo ka ge e bontšhitšwe.</p>											
<p>Barutwana akanya kgokaganyo magareng ga 8, 3 le 5 le mo nomoro ye nngwe le ye nngwe e swanetšego go ya gona ka gare ga taekramo ya para.</p>											
<p>Ngwala se morutwana a se filego pele. Ngwala seo se dumelšwego letlapeng ka dikholomo tše pedi. O ka nyaka go thuša barutwana ka tše 2 tša mafelelo go kholomo ye nngwe le ye nngwe o šomiša foreime go swana le:</p>											
<p><math>8 = \square + \square</math>; <math>3 = \square - \square</math>; <math>5 = \square - \square</math></p>											
<p>Morutiši: Go nomoro ye nngwe le ye nngwe ya lapa re ka dira mafokopalo a 4 a go hlakantšha le a go ntšha a 4. A re boele go mehlala ya morago re bone ge eba re šiile tše dingwe.</p>	<table border="1"> <thead> <tr> <th>+ dipalo</th> <th>- dipalo</th> </tr> </thead> <tbody> <tr> <td><math>5 + 3 = 8</math></td> <td><math>8 - 3 = 5</math></td> </tr> <tr> <td><math>3 + 5 = 8</math></td> <td><math>8 - 5 = 3</math></td> </tr> <tr> <td><math>8 = 5 + 3</math></td> <td><math>5 = 8 - 3</math></td> </tr> <tr> <td><math>8 = 3 + 5</math></td> <td><math>3 = 8 - 5</math></td> </tr> </tbody> </table>	+ dipalo	- dipalo	$5 + 3 = 8$	$8 - 3 = 5$	$3 + 5 = 8$	$8 - 5 = 3$	$8 = 5 + 3$	$5 = 8 - 3$	$8 = 3 + 5$	$3 = 8 - 5$
+ dipalo	- dipalo										
$5 + 3 = 8$	$8 - 3 = 5$										
$3 + 5 = 8$	$8 - 5 = 3$										
$8 = 5 + 3$	$5 = 8 - 3$										
$8 = 3 + 5$	$3 = 8 - 5$										
<p>Ngwala mafokopalo a 8, 3 le 5 le ao a tlogetšwego.</p>											

### Mešongwana ya Morutwana

Barutwana ba swanetše go šoma ka bobedi gomme ba thale taekramo ya para ya nomoro ya lapa e lego, 7, 9, le 16. Bjale ba swanetše go ngwala dipalo tše 4 tša go hlakantšha le tše 4 tša go ntšha tša dinomoro tša lapa.

Sepela o lebelela mošoma wa bona le go thuša moo go nyakegago.

### Thekgo ka Bidio

Kgokaganyo ya go Hlakantšha le go Ntšha 2



<https://youtu.be/fKPfCfF0w1I>

**KGOKAGANYO YA GO HLAKANTSHA LE GO NTSHA: THUTWANA YA GO THOMA YA 3****Motsotso wo 1 wa go šidulla Monagano**

- a. Go Hlakantsha ka pela: Dinomoro tša dijiti ye 1 le dinomoro tša dijiti tše 2  
 b. Go ntsha ka pela: Dinomoro tša dijiti ye 1

**Tatelano ya mošongwana**

Mo go thutwana ye re ithuta go kgokaganya go hlakantsha le go ntsha re šomiša taekramo ya para.

<p>Morutiši: Dinomoro tše 17, 5 le 22 di kgokaga nywa ge re hlakantsha le ge re ntsha. Ke dinomoro tša tswalano/go tswalana. Thala taekramo ya para bjale ka ge e bontšitšwe. Barutwana ba akanya kgokaganyo magareng ga 17, 5 le 22 le gore naa nomoro ye nngwe le ye nngwe e swanetše go ya ka gare ga taekramo ya para.      Ngwala seo morutwana a bolelago bjale ka pele ka gare ga dikholomo tše pedi tša go hlakantsha le tša go ntsha tša dipalo. Phumula tše di filwego tša go se nepagale. O ka nyaka go thuša barutwana ka tše 2 tša mafelelo ka gare ga kholomo ye nngwe le ye nngwe ka go šomiša diforeime bjalo ka:  <math>22 = \square + \square</math>; <math>5 = \square - \square</math>; <math>17 = \square - \square</math>      Morutiši: Go dinomoro ka moka tša lapa re ka dira mafokopalo a 4 a go hlakantsha le a 4 a go ntsha. A re bone ge e ba re tlogetše a mangwe.      Ngwala mafokopalo ka 17, 5 le 22 tše di filwego a tlogetšwego.</p>	<p>Ngwala 17, 5 le 22 letlapeng.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">17</td> <td style="text-align: center;">5</td> <td style="text-align: center;">22</td> </tr> <tr> <td colspan="2"></td> <td></td> </tr> <tr> <td colspan="3"></td> </tr> </table> <table border="1" style="margin-left: auto; margin-right: auto; width: fit-content;"> <tr> <th>dipalotšhomod</th> <th>dipalotšhomod</th> </tr> <tr> <td><math>5 + 17 = 22</math></td> <td><math>22 - 17 = 5</math></td> </tr> <tr> <td><math>17 + 5 = 22</math></td> <td><math>22 - 5 = 17</math></td> </tr> <tr> <td><math>22 = 5 + 17</math></td> <td><math>5 = 22 - 17</math></td> </tr> <tr> <td><math>22 = 17 + 5</math></td> <td><math>17 = 22 - 5</math></td> </tr> </table>	17	5	22							dipalotšhomod	dipalotšhomod	$5 + 17 = 22$	$22 - 17 = 5$	$17 + 5 = 22$	$22 - 5 = 17$	$22 = 5 + 17$	$5 = 22 - 17$	$22 = 17 + 5$	$17 = 22 - 5$
17	5	22																		
dipalotšhomod	dipalotšhomod																			
$5 + 17 = 22$	$22 - 17 = 5$																			
$17 + 5 = 22$	$22 - 5 = 17$																			
$22 = 5 + 17$	$5 = 22 - 17$																			
$22 = 17 + 5$	$17 = 22 - 5$																			

**Mešongwana ya Morutwana**

Bjale barutwana ba swanetšego go šomiša letlakala la mošongwana le ba le filwego la thutwana ya go thoma la 3.

Barutwana ba swanetše ba ngwale dinomoro tša lapa ka gare ga taekramo ya para ya maleba. Ba swanetše ba bapetše bogolo bja dinomoro tše pedi tše dinnyane le bogolo bja para ye nnyane.

**Thekgo ka Bidio**

Kgokaganyo ya go Hlakantsha le go Ntsha 3



<https://youtu.be/r02iTWMfP0>

**Thekgo ka Bidio**

Kgokaganyo ya go Hlakantšha le go Ntšha 4



<https://youtu.be/KPsfH209EEM>

Leina:

**Thutwana ya go thoma ya 3 ya Kgokaganyo ya go Hlakantšha le go Ntšha: Mošongwana wa morutwana**

Ngwala mafokopalo a a latelago ka gare ga taekramo ya para ya maleba ya ka fase. Bjale ngwala mafokopalo a mane a go hlakantšha le a mane a go ntšha go nomoro ye nngwe le ye nngwe ya lapa le tee.

$$5 + 5 = 10 \quad 3 + 4 = 7 \quad 11 + 1 = 12 \quad 9 = 2 + 7$$

Ela hloko  $5 + 5 = 10$  e na le mafoko a mabedi a go hlakantšha le a mabedi a go ntšha fela.

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## Go hlakantšha:


Go hlakantšha:


Go hlakantšha:


Go hlakantšha·

## Go ntšha:

Ge nřeba:

Ge ntěha:

Go ntšha:

**KGOKAGANYO YA GO HLAKANTSHA LE GO NTSHA: THUTWANA YA GO THOMA YA 4****Motsotso wo 1 wa go šidulla monagano**

Thala taekramo ya para ya kopanyo ye nngwe le ye nngwe ya dinomoro tše 3 tše di fapafapanego ka 1-20. Mehlala ye mebedi e filwe ka fase. Thala ditaekramo tša para go dikarolo tša go bonala go dinomoro.

7	3
10	

4	9
13	

Bjale kgopela barutwana ba o fe mafokopalo a go fapano a go hlakantsha le a go ntsha ao a šomago go taekramo ya para. Ge barutwana ba akanya mafokopalo ao a ka kgonagalago, šupa dinomoro godimo ga taekramo ya para.

Dira bonnete bja gore barutwana ba akanya mafokopalo a go hlakantsha le a go ntsha:

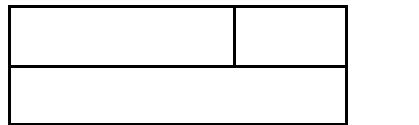
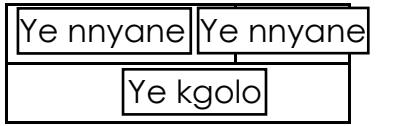
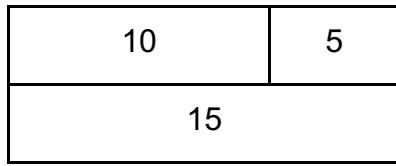
$$\text{mohl. } 7 + 3 = 10 \quad 3 + 7 = 10 \quad 10 - 3 = 7 \quad 10 - 7 = 3$$

Hlohleletša barutwana gore ba akanye gape mafokopalo moo ‘karabo’ e tlago pele, mohl.  
 $10 = 7 + 3 \quad 10 = 3 + 7 \quad 3 = 10 - 7 \quad 7 = 10 - 3$

*Ela tlhoko/Ntlha: Go dula go na le mafokopalo a 8 ao a kgonagalago go swana le 8 ka godimo ga mošomo woo go taekramo ye nngwe le ye nngwe ya para. Barutwana ga ba gapeletšege go akanya mafokopalo ao a kgonagalago a 8 ka moka, efela go lokile go ba hlohleletša go akanya a mmalwa.*

**Tatelano ya mošongwana**

Mo go thutwana ye re šomiša kgokaganyo magareng ga go hlakantsha le go ntsha go ngwala dipalo tša go fapano ka dinomoro tše di swanago.

Swara mongwalo wa ‘ye Kgolo’ ‘ye nnyane’ le ‘ye nnyane’.  Morutiši: Re ithutile go re go na le para ye kgolo ye 1 le dipara tše nnyane tše 2 go dinomoro tša lapa. Re bitša dipara, ye kgolo, ye nnyane le ye nnyane (swara mongwalo wa tšona). Ke mang yoo a ka nthušago go ngwala dipara mo go taekramo ya para?  Bitša morutwana a tle a kgomaretše maina kgauswi le para.  Morutiši: Ke nyaka re tlatše nomoro ya lapa 15, 5 le 10 ka gare ga taekramo ya para ye.  Ngwala 15, 5 le 10 letlapeng. Gopotša barutwana go re nomoro ye kgolo e tla ya ka gare ga para yeo e ngwadilwego ye kgolo gomme dinomoro tše pedi tše dinnyane di tla ya ka go dipara tše di ngwadilwego ye nnyane. Tlatša dinomoro ka thušo go tšwa go barutwana. Ge ba fapantšha 10 le 5, ba gopotša go	Thala taekramo ya para ya ka fase letlapeng.      15      5      10 
---	---

<p>re bogolo bja dipara bo swantše bo nyalane le bogolo bja nomoro.</p> <p>Morutiši: Mphe mafokopalo a mmalwa ka dinomoro tše 15,5 la 10.</p> <p><i>Ela tlhoko/Ntlha: Ga go hlokagale go re o hwetše mafokopalo a 8 ka moka a dinomoro tša lapa. Seo o se nyakago ke go bona ge e ba barutwana ba kwešiša tswalano magareng ga dinomoro. Ge go ka fiwa ye nngwe ya 'maaka' gopotša barutwana ka mafoko a nneta le a maaka ao ba ithutilego ka ona nako ye e fetilego,</i></p> <p><i>mohl. Ye nnyanel — Ye Kgolo = Ye nnyane maaka</i></p>			
<p>Rarolla: 25 – 22</p> <p>Morutiši: Ge re leka go dira palo ye ka 22 re balela morago go tloga go 25 yeo e tla tšeago nako e telele. Efela re ka thala taekramo ya para ya dinomoro tše tša lapa go hwetše tsela ye bonolo ya go hwetše nomoro ye e tlogetšwego. 25 ke ye kgolo gomme 22 ke ye nngwe ya tše dinnyane.</p> <p>Thala taekramo ya para gomme o tlatše 22 le 25.</p> <p>Morutiši: Para ye ke ye nnyane kudu ka gore 22 le 25 (šupa godimo ga taekramo) di kgauswi le kgauswi kudu ka moka. Bjale go tlo ba bonolo go botšiša '22 hlakantšha le eng e lekana le 25?' (šupa go taekramo ge o bolela se; ngwala lefoko) goba '25 o ntšha eng e lekana le 22?' (šupa godimo ga taekramo; ngwala lefoko). Nka hwetše karabo ka pela ka go balela go ya godimo go tloga go 22, goba ka go balela go ya fase go tloga go 25.</p> <p>Šoma palo ya nomoro yeo e tlogetšwego le barutwana.</p> <p>Ngwala '3' ka gare ga para ye nnyane ka gare ga lepokisi la go se be le selo go mafokopalo.</p> <p>Morutiši: Ge re e ba le nomoro ye e tlogetšwego re ka bona mafoko ka moka a go hlakantšha le a go ntšha ao a ka dirwago ka dinomoro tše tša lapa.</p> <p>Gopotša barutwana ka mafoko a mangwe ao a dirwago ge o šupa go dipara</p> <p>Morutiši: (o šupa go bothata bja mathomo) Re baletše ga 3 go hwetše karabo go na le go re re balele ga 22. Re ka lebelela go taekramo ya para go hwetše palo ye bonolo.</p>	<p>25 – 22 = <input type="text"/></p> <table border="1"> <tr> <td>22</td> </tr> <tr> <td>25</td> </tr> </table> <p>Ngwala palo:</p> <p><math>22 + \square = 25</math></p> <p><math>25 - \square = 22</math></p> <p>Tlogela taekramo le mafoko letlapeng.</p>	22	25
22			
25			

### Mošongwana wa Morutwana

Barutwana ba swanetše go leka mehlala ye e latelago ka go kopolla taekramo ya para pele gomme ba tlatše dinomoro tše di filwego. Barutwana ba swanetše go ngwala hlakantšho ya ka pela yeo ba e šomišago go hwetša karabo.

$21 - 17 = \square$


$28 - 25 = \square$


Barutwana ba swanetše go fa maina a, Ye Kgolo le Ye nnyane go dipotšišo go hlaloša kgopoloo ya bona. Mohl. "go  $21 - 17$ , ke fetoša palo go balela go ya godimo go tloga go  $17$  go ya go  $21$  ka go šoma  $17 + \square = 21$ " goba " Nka fetoša palo ya  $21 - 17$  go balela go ya fase go tloga go  $21$  go ya go  $17$  ka go šoma  $21 - \square = 17$ ."

### Mošongwana wa Gae: Letlakalatšhomo la 1

Mafelelong a thutwana ya lehono, efa barutwana Letlakalatšhomo la 1.

Ga se wa swanela go beela barutwana nako ge ba dira letlakalatšhomo le. Maikemišetšo ke go fa barutwana mešongwana ye mengwe ye ba e dirilego ka hlogo.

Leina:

**Kgokaganyo ya go hlakantšha le go ntšha: Letlakalatšhomo la 1**

1.	$67 + \boxed{\quad} = 72$	Tlatša 17, 3 le 20 go feleletša mafokopalo a ka fase (11 – 14)
2.	$54 - 6 = \boxed{\quad}$	11. $\boxed{\quad} - 3 = \boxed{\quad}$
3.	$78 + 7 = \boxed{\quad}$	12. $\boxed{\quad} + 3 = \boxed{\quad}$
4.	$26 + \boxed{\quad} = 34$	13. $\boxed{\quad} - \boxed{\quad} = 3$
5.	$99 + \boxed{\quad} = 102$	14. $3 + \boxed{\quad} = \boxed{\quad}$
6.	Tlatša dinomoro tše tše tharo ka gare ga mapokisana: $13 - 8 = 5$	15. $198 + \boxed{\quad} = 202$
7.	$206 - 8 = \boxed{\quad}$	16. $31 - \boxed{\quad} = 28$
8.	$48 + \boxed{\quad} = 54$	17. $46 + 8 = \boxed{\quad}$
9.	$81 - \boxed{\quad} = 78$	18. $55 + \boxed{\quad} = 63$
10.	$39 + \boxed{\quad} = 44$	19. $64 - \boxed{\quad} = 59$
		20. $65 + \boxed{\quad} = 72$

**Dintlha tša morutiši**

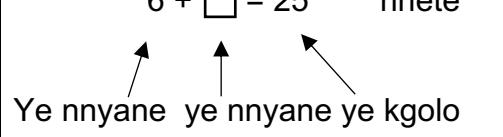
Mo o ka ngwala dintlha mabapi le thutwana le gore naa ke barutwana bafe bao ba nyakago thušo ka mekgwa ya go fapanā. O ka dira dintlha tše dingwe tše o nyakago go di tšweletša ka thutwana ya go thoma ya go latela.

**KGOKAGANYO YA GO HLAKANTSHA LE GO NTSHA: THUTWANA YA GO THOMA YA 5****Motsotso wo 1 wa go šidulla Monagano**

Tšomišo ya taekramo ya para

**Tatelano ya mošongwana**

Mo go thutwana ye re hwetša dipalo tše bonolo tša go tswalana go hlakantšho moo nomoro ye nngwe ya go hlakantšha e tlogetšwego.

<p>Bothata: <math>6 + \square = 25</math> <math>\square + 3 = 28</math></p>	<p>Ngwala dipalo ka gare ga ditaekramo tša para tša go hloka selo bjalo ka ge di bontšitšwe:</p>								
<p>Morutiši: Go thutwana ya mafelelo re bone go re, re ka fotoša dipalo go re di be bonolo ka kgokaganyo ya go hlakantšha goba go ntšha go hwetša nomoro ye e tlogetšwego. Lebelela dipalo tše letlapeng.</p>	$6 + \square = 25$ $\square + 3 = 28$								
<p>Thala ditaekramo tša para tša go se be le selo tše di bontšitšwego gomme o šome le barutwana go dira ditaekramo tša para tša tšomo ya dipalo</p>	<table border="1" style="display: flex; justify-content: space-around;"> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </table>								
<p>Morutisi: Nthuše go feleletša ditaekramo tša para tša tšomo ya dipalo.</p>	<table border="1" style="display: flex; justify-content: space-around;"> <tr><td>6</td><td></td><td>3</td></tr> <tr><td>25</td><td></td><td>28</td></tr> </table>	6		3	25		28		
6		3							
25		28							
<p>Kgopela barutwana go go laetša moo o swanetšego go thala methalo ka gare ga dipara tša ka godimo, le moo o swanetšego go ngwala nomoro ye nngwe le ye nngwe.</p>	$25 - 6 = \square$ $28 - 3 = \square$								
<p>Morutiši: Go bonolo go araba 25 ntsha 6 (šupa dinomoro godimo ga para) goba 28 ntsha 3 (šupa dinomoro godimo ga para).</p>	<table border="1" style="display: flex; justify-content: space-around;"> <tr><td>6</td><td>19</td><td>25</td><td>3</td></tr> <tr><td>25</td><td></td><td>28</td><td></td></tr> </table>	6	19	25	3	25		28	
6	19	25	3						
25		28							
<p>Šoma dipalo tše le bana, o šomiša mokgwā wa go kgaoletša ka lesome moo go nyakegago (mohl. <math>25 - 5</math> ke <math>20</math> le <math>20 - 1</math> ke <math>19</math>, bjale <math>25 - 6 = 19</math></p>	$25 - 6 = 19$ $28 - 3 = 25$ $\downarrow$ $\downarrow$ $6 + 19 = 25$ $25 + 3 = 28$								
<p>Ngwala dikarabo ka gare ka dipara tša go se be le selo le mapokisi a go se be le selo bjalo ka ge di bontšitšwe. Bjale tlatša mafokopalo a mathomo.</p>									
<p>Morutiši: Re hweditše gore go bonolo go rarolla dipalo tša go hlakantšha ka go di fotošetša go dipalo tša go ntšha.</p>									
<p>Morutiši: Re lemogile gore ge re e ba le bothata le dipalo tša go hlakantšha le tša go ntšha re ka bona ge e ba go na le tsela ye re ka di fotošago go re di be bonolo. Efela re ka se di fotoše go ya go palo efe goba efe.</p>	<p>Nka fetola ...?</p>								
<p>Morutiši: Nka fotoša <math>6 + \square = 25</math> go ya go <math>\square - 6 = 25</math>?</p>	$6 + \square = 25$ go ya go $\square - 6 = 25$ $6 + \square = 25$ nnate 								

Ngwala tšomo ya dipalo letlapeng. Botša barutwana go re mafokopalo a swanetše go kgokanywa ka tatelano ya Ye kgolo, Ye nnyane, Ye nnyane go taekramo ya para.

Thuša barutwana go nagana gore naa ke dinomoro di fe mo lefokong tše di ka ngwalago Ye kgolo, Ye nnyane le Ye nnyane gomme a di ngwale. Bolela go re, le ge 'Ye nnyane + Ye nnyane = Ye kgolo e a kwešišega goba aowa. Botša ke nneta goba maaka.

Thuša barutwana go ngwala  $\square - 6 = 25$  ka tsela ye e swanago le go tše sephetho ge e ba 'Ye nnyane – Ye nnyane = Ye kgolo' ke nneta goba maaka.

Barutwana ba swanetše go lemoga go re  $\square - 6 = 25$  ke **maaka** go dinomoro tša lapa. Ngwala nneta goba maaka go lefokopalo.

$$\square - 6 = 25 \quad \text{maaka}$$

↑      ↑      ↗

Ye nnyane    ye nnyane    ye kgolo

### Dintlha tša morutiši

Mo o ka ngwala dintlha mabapi le thutwana le gore naa ke barutwana bafe bao ba nyakago thušo ka mekgwa ya go fapano. O ka dira dintlha tše dingwe tše o nyakago go di tšweletša ka thutwana ya go thoma ya go latela.

$$7 + \square = 32 \quad \square + 3 = 104$$

### Thekgo ka Bidio

Kgokaganyo ya go Hlakantšha le go Ntšha 5



<https://youtu.be/bkmaf0ArzuY>

**TSWALANYO YA GO HLAKANTSHA LE GO NTSHA: THUTWANA YA GO THOMA YA 6****Motsotso wo 1 wa go šidulla Monagano**

Go šoma ka taekramo ya para

**Tatelano ya mošongwana**

Mo go thutwana ye re šomiša tswalanyo magareng ga go hlakantsha le go ntsha go dira dipalo tsa gontsha go re di be bonolo.

<p>Rarolla: <math>\square - 30 = 9</math>      <math>30 - \square = 9</math></p>	<p>Ngwala dipalo ka go ditaekramo tša para tša go hloka selo bjalo ka ge di bontšitšwe:</p>
<p>Morutiši: Ka go thutwana ya mafelelo re lemogile gore re ka fotoša palo ya go hlakantsha goba ya go ntsha ka go fapano go hwetša nomoro ye e tlogetšwego.</p>	$\square - 30 = 9$ $30 - \square = 9$
<p>Lebelela dipalo tše letlapeng. Thala ditaekramo tša para tša go hloka selo tše di bontšitšwego gomme o šome le barutwana go aga ditaekramo tša para tša dipalo</p>	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 10px;"></div> <div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 10px;"></div> </div>
<p>Morutiši: Nthuše go feleletša dipalo go ditaekramo tša para. Naa ditaekramo tša para di tla swana goba go fapano?</p>	
<p>Barutwana ba swanetše go bontšha gore di a fapano.</p>	
<p>Go mohlala wa mathomo (<math>\square - 30 = 9</math>), yeo e sa tsebjego ke ye kgolo gomme 30 le 9 ke tše dinnyane.</p>	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 10px;"></div> <div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 10px;"></div> </div>
<p>Ka go mohlala wa bobedi (<math>30 - \square = 9</math>), 30 ke ye kgolo gomme ya go se tsebjwe le 9 ke tše di nnyane.</p>	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 10px;"></div> <div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 10px;"></div> </div>
<p>Kgopela barutwana go o laetša moo o swanetšego go thala methalo ka gare ga dipara tša ka godimo, le moo o swanetšego go ngwala nomoro ye nngwe le ye nngwe. Ge barutwana ba palelwa, ba hloholeletše go ngwala ye Kgolo, ye Nnyane le ye Nnyane ka gare ga ditaekramo tša para.</p>	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 10px;"></div> <div style="border: 1px solid black; width: 150px; height: 40px; margin-bottom: 10px;"></div> </div>
<p>Tšwelapele go botša barutwana go lemoga seo se swanago le se se fapanago go ditaekramo tša para.</p>	$30 + 9 = \square$ $30 - \square = 9$
<p>Ngwala dipalo tše di latelago go taekrako ya para ya maleba. Bjalo ka ge di bontšitšwe:</p>	
<p><math>30 + 9 = \square</math>      <math>30 - \square = 9</math></p>	

Šoma le barutwana go šoma dikarabo go  $30 + 9$  (e kgokaganya le taekramo ya para ya mathomo) le  $30 - 9$  e kgokaganya taekramo ya para ya bobedi).

Šoma le barutwana go tlatša dinomoro tša maleba go dipalo le taekramo ya para bjale ka ge e bontšhitšwe

Tlatša go lefokopalo la mathomo. Bontšha barutwana go re ge re šoma  $30 + 9$  e re thuša go rarolla  $\square - 30 = 9$  le ka moo e ka re thušago gape go rarolla  $30 - \boxed{9}$ .

<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>30</td><td>9</td></tr> <tr><td>39</td><td></td></tr> </table>	30	9	39		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td>21</td><td>9</td></tr> <tr><td>30</td><td></td></tr> </table>	21	9	30	
30	9								
39									
21	9								
30									
$30 + 9 = \boxed{39}$	$30 - 9 = \boxed{21}$								
↓	↓								
$\boxed{39} - 30 = 9$	$30 - \boxed{21} = 9$								

### Mešongwana ya Morutwana

Barutwana ba swanetše go leka mehlala ye e latelago ka go thala taekramo ya para ba be ba ngwalolle lefokopalo bjalo ka palo ye bonolo go hwetša nomoro ye e tlogetšwego:

$$25 - \square = 9 \quad \square - 25 = 9$$

Barutwana ba swanetše go hlapa kgopolole bona, mohl.“go  $25 - \square = 9$  nka fetola palo go ya go  $25 - 9$ . Ge ke ntšha 9 go tšwa go 25, ke hwetša 16 ka lebaka la gore  $25 - 5$  ke 20 le  $20 - 4 = 16$ . Se se ra gore  $25 - \boxed{16} = 9$ .”

### Thekgo ya Bidio

kgokaganyo ya go Hlakantšha le go Ntšha 6



<https://youtu.be/OnF8U7aBPOc>

**KGOKAGANYO YA GO HLAKANTSHA LE GO NTSHA: THUTWANA YA GO THOMA YA 7****Motsotso wo 1 wa go šidulla monagano**

- a. Go hlakantsha ka pela: dinomoro tša dijiti e tee tloga (šomiša dinomoro tše dingwe tše di tla re fago dikarabo tša ka godimo ga 100 le 200, mohl.  $99 + 2$ ;  $99 + 4$ ;  $198 + 4$ ;  $199 + 3$ )
- b. Go ntsha ka pela: dinomoro tša dijiti e tee go tloga go dinomoro tša dijiti tše 2 (šomiša dinomoro tše dingwe tša ka godimo ga 100 le 200, mohl.  $101 - 2$ ;  $103 - 4$ ;  $203 - 4$ ;  $201 - 3$ )

Dinomoro tša dijiti e 1 go tloga go dinomoro tša dijiti tše pedi (šomiša tše dingwe tša dinomoro godimo ga 100 le 200, mohl.  $101 - 2$ ;  $103 - 4$ ;  $203 - 4$ ;  $201 - 3$ )

**Tatelano ya mošongwana**

Mo go thutwana ye, re kgokaganya go hlakantsha le go ntsha gore go be bonolo go rarolla dipalo tša go hlakantsha le go ntsha ka dinomoro tše di kgolo.

<p>Morutiši: A re šomišeng seo re ithutilego go rarolla tše dingwe tša tšhomo ya dipalo ka dinomoro tše dikgolo. O ka hwetša tswalano magareng ga dinomoro tše 105, 10 le 95?</p> <p>Thala taekramo ya para yeo e se nago selo bjale ka ge e bontšitšwe</p>	<p>ngwala 105, 10 le 95 letlapeng.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 33.33%;">105</td><td style="width: 33.33%;">10</td><td style="width: 33.33%;">95</td></tr> <tr> <td> </td><td> </td><td> </td></tr> </table>	105	10	95							
105	10	95									
<p>Morutiši: Dinomoro tše 105, 10 le 95 di kgokaganywa ge re hlakantsha le ge re ntsha. Di gopolwa bjalo ka dinomoro tša lapa.</p>	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 50%;">95</td><td style="width: 50%;">10</td></tr> <tr> <td>105</td><td> </td></tr> </table>	95	10	105							
95	10										
105											
<p>Barutwana ba akanya dikgokaganyo magareng ga 105, 10 le 95 le moo nomoro ye nngwe le ye nngwe e swanetšego go ngwalwa ka gare ga taekramo ya para.</p>	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="width: 50%;">dipalotšhomodipalotšhomo</td><td style="width: 50%;">dipalotšhomodipalotšhomo</td></tr> <tr> <td>10 + 95 = 105</td><td>105 - 10 = 95</td></tr> <tr> <td>95 + 10 = 105</td><td>105 - 95 = 10</td></tr> <tr> <td>105 = 95 + 10</td><td>95 = 105 - 10</td></tr> <tr> <td>105 = 10 + 95</td><td>10 = 105 - 95</td></tr> </table>	dipalotšhomodipalotšhomo	dipalotšhomodipalotšhomo	10 + 95 = 105	105 - 10 = 95	95 + 10 = 105	105 - 95 = 10	105 = 95 + 10	95 = 105 - 10	105 = 10 + 95	10 = 105 - 95
dipalotšhomodipalotšhomo	dipalotšhomodipalotšhomo										
10 + 95 = 105	105 - 10 = 95										
95 + 10 = 105	105 - 95 = 10										
105 = 95 + 10	95 = 105 - 10										
105 = 10 + 95	10 = 105 - 95										
<p>Šomišana le seo morutwana a se boletšego bjalo ka pele. Ngwala seo se boletšwego se se dumelletšwego letlapeng ka gare ga dikholomo. O nyaka go thuša barutwana ka tše pedi tša mafelelo ka gare ga kholomo ye nngwe le ye nngwe ka go šomiša diforeime bjale ka tše.</p> <p><math>105 = \square + \square</math>; <math>95 = \square - \square</math>; <math>10 = \square - \square</math></p>											
<p>Morutiši: Go dinomoro ka moka tša lapa, re ka dira mafokopalo a 4 a go hlakantsha le a 4 a go ntsha. A re bone ge e ba re tlogela ye nngwe ka ntle.</p>											
<p>Ngwala lefokopalo la 105, 10 le 95 leo re le tlogelago ka ntle.</p>											
<p>Thala taekramo ya para ya bothata bjo bongwe le bjo bongwe. Ngwala di para ka 'Ye kgolo', 'Ye nnyane' le</p>											

<p>'Ye nnyane'. Hwetša bara ye e tlogetšwego gomme o ngwale karabo ka gare ga poloko.</p> <p><math>101 - 98 = \square</math></p> <p><math>\square - 99 = 4</math></p> <p><math>\square + 2 = 201</math></p>	
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### Mešongwana ya Morutwana

Bjale barutwana ba swanetše go leka mehlala ye e latelago ka go tšea sephetho sa go re na ke nomoro ye kgolo efe le gore dinomoro tše dinnyane ke dife, ka go thala taekramo ya para le ka go rarolla nomoro ye e tlogetšwego.

$$115 - \square = 90 \quad \square + 3 = 210$$

Barutwana ba swanetše go hlaloša kgopolو ya bona

### Mošongwana wa gae: Letlakalatšhomo la 2

Mafelelong a thutwana ya lehono, efa barutwana Letlakalatšhomo la 2.

Ga se wa swanela go beela barutwana nako ge ba dira letlakalatšhomo le. Maikemišetšo ke go fa barutwana mešongwana ye mengwe ye ba e dirilego ka hlogo.

### Thekgo ka Bidio

Kgokaganyo ya go Hlakantšha le go Ntšha 7



<https://youtu.be/vlFAjz8cKMQ>

Leina:

**Kgokaganyo ya go Hlakantšha le go Ntšha: Letlakalatšhomo la 2**

1.  $72 - 67 = \boxed{\phantom{00}}$

4.  $94 - 88 = \boxed{\phantom{00}}$

2.  $4 + \boxed{\phantom{00}} = 303$

5.  $302 - 298 = \boxed{\phantom{00}}$

3.  $\boxed{\phantom{00}} - 63 = 6$

6. 

$\boxed{\phantom{00}}$	98
103	

**$34 + 27 = 61$**

**$36 + 25 = 61$**

**$61 + 27 = 88$**

7.  $61 - 27 = \boxed{\phantom{00}}$

8.  $\boxed{\phantom{00}} + 36 = 61$

Šomiša dinomoro tše tharo tša ka fase ka mekgwa e mebedi ya go ntšha ya go fapano:

**$78 + 52 = 130$**

9.  $\boxed{\phantom{00}} - \boxed{\phantom{00}} = \boxed{\phantom{00}}$

10.  $\boxed{\phantom{00}} - \boxed{\phantom{00}} = \boxed{\phantom{00}}$

**Dintlha tša morutiši**

Mo o ka ngwala dintlha mabapi le thutwana le gore naa ke barutwana bafe bao ba nyakago thušo ka mekgwa ya go fapanā. O ka dira dintlha tše dingwe tše o nyakago go di tšweletša ka thutwana ya go thoma ya go latela.

**KGOKAGANYO YA GO HLAKANTSHA LE GO NTSHA : THUTWANA YA GO THOMA YA 8****Motsotso wo 1 wa go šidulla Monagano**

- a. Go hlakantsha ka pela: dinomoro tša dijiti ye 1 le dinomoro tša dijiti tše 2  
 b. Go ntsha ka pela: dinomoro tša dijiti ye 1 go tšwa go dinomoro tša dijiti tše 2

**Tatelano ya mošongwana**

Mo go thutwana ye re šomiša kgokaganyo magareng ga go hlakantsha le go ntsha go rarolla marara ntle ga taekramo ya para

<p>Ngwala tšomo ya dipalo tše di laeditšwego letlapeng. Tlogela sekgoba ka fase ga palo ye nngwe le ye nngwe gore o ngwale palo ya go hlakantsha goba ya go ntsha ya tswalano.</p> <p>Barutwana ba swanetše go leka go akanya taekramo ya para go palo ye nngwe le ye nngwe. Ge ba palelwa,o ka thala taekramo ya para ka fase ya tšomo ya palo</p> <p>Mehlala e filwe ka fase ya gore o ka šoma bjang dipalo tše tharo tša mathomo.</p>	$\square + 3 = 28$ $\square - 37 = 6$ $202 - 198 = \square$ $2 + \square = 51$ $22 - \square = 3$
<p>Morutiši: Mošongwana wo o ka balega ka tsela ye:      Eng hlakantsha le 3 e lekana le 28? Naa o ka fetola bjang palo ye go hwetša nomoro ye e tlogetšwego ga bonolo?</p> <p>Barutwana: <math>28 - 3</math></p> <p>Ngwalo dipalo tše go tšwa mathomong.</p> <p>Morutiši: bjalo karabo ke eng?</p> <p>Barutwana: 25</p> <p>Barutwana ba ka balela go ya fase ge ba sa di tsebe (27, 26, 25, so; karabo ke 25).      (27, 26, 25, so; karabo ke 25).</p>	$\square + 3 = 28$ $28 - 3 = \square$
<p>Morutiši: Mošongwana wo o ka balega ka tsela ye:      eng ntsha 3 e lekana le 28? Naa o ka fetola bjang palo ye gore e be bonolo go hwetša nomoro ye e tlogetšwego?</p> <p>Barutwana: <math>6 + 37</math> (goba <math>37 + 6</math>)</p> <p>Ngwala palo ye go tšwa mathomong.</p> <p>Morutiši: Bjale karabo ke eng?</p> <p>Barutwana: 43</p> <p>Barutwana ba ka balela go ya godimo go tloga go 37 (38, 39, 40, 41, 42, 43, bjale karabo ke 43). Ba bangwe ba ka kgaoleša ka lesome (<math>37 + 3 = 40</math>)</p>	$\square - 37 = 6$ $6 + 37 = \square$ goba $37 + 6 = \square$

<p>Morutisi: Mošongwana wo o nyaka gore o rarolle 202 ntšha 198. Naa o ka fetola palo ye bjang gore go be bonolo go hwetša karabo.</p>	$202 - 198 = \square$
<p>Barutwana: <math>198 + \square = 202</math></p>	$198 + \square = 202$
<p>Ngwala palo ye go tšwa mathomong.</p>	
<p>Morutisi: Bjale karabo ke eng?</p>	
<p>Barutwana: 4</p>	
<p>Barutwana ba ka balela go ya godimo go tloga go 198 (199, 200, 201, 202 bjale; Karabo ke 4). Ba bangwe ba ka kgaoletska ka lesome(<math>198 + 2 = 200</math>; <math>200 + 2 = 202</math>, bjale karabo ke 4).</p>	

## **Mešongwana ya morutwana**

Blale barutwana ba swanetše go šomiša mekgwa ya go fetola dipalo tša go hlakantšha go ya go dipalo tša go ntšha, le tša go ntšha go ya go tša go hlakantšha, ge tše di fetoga di dira gore go be bonolo go hwetša dinomoro tše di tlogetšwego.

$4 + \square = 105$

$$\square + 5 = 69$$

$$\square - 29 = 2$$

$41 - 36 = \square$

# Thekgo ka Bidio

## Kgokaganyo ya go Hlakantšha le go Ntšha 8



<https://youtu.be/nYoOex4bibI>

**Kgokaganyo ya go Hlakantšha le go Ntšha: Molekwana wa ka morago ga Thutwana**

SERIPA SA 1

Metsotso e 2 go letlakala le

1.  $76 + \boxed{\quad} = 82$

Tlatša 16, 4 le 20 go feleletša mafokopalo a ka fase (11 - 14).

16	4
20	

2.  $42 - 4 = \boxed{\quad}$

11.  $\boxed{\quad} - 4 = \boxed{\quad}$

3.  $86 + 5 = \boxed{\quad}$

12.  $\boxed{\quad} + 4 = \boxed{\quad}$

4.  $17 + \boxed{\quad} = 23$

13.  $\boxed{\quad} - \boxed{\quad} = 4$

5.  $199 + \boxed{\quad} = 201$

14.  $4 + \boxed{\quad} = \boxed{\quad}$

Tlatša dinomoro tše tše tharo ka gare ga mapokisana:  $11 - 9 = 2$ .

6.  $\boxed{\quad} | \boxed{\quad}$

15.  $99 + \boxed{\quad} = 102$

7.  $\boxed{\quad}$

16.  $21 - \boxed{\quad} = 19$

17.  $37 + 6 = \boxed{\quad}$

8.  $302 - 5 = \boxed{\quad}$

18.  $27 + \boxed{\quad} = 35$

9.  $29 + \boxed{\quad} = 34$

19.  $34 - \boxed{\quad} = 29$

10.  $91 - \boxed{\quad} = 89$

20.  $75 + \boxed{\quad} = 82$

Palomoka go 20

**Kgokaganyo ya go Hlakantšha le go Ntšha: Molekwana wa ka morago ga Thutwana**

SERIPA SA 2

Metsotso e 3 letlakaleng le

1.  $73 - 68 = \boxed{\phantom{00}}$

2.  $6 + \boxed{\phantom{00}} = 303$

3.  $\boxed{\phantom{00}} - 82 = 5$

4.  $82 - 75 = \boxed{\phantom{00}}$

5.  $201 - 199 = \boxed{\phantom{00}}$

6. 
$$\begin{array}{c|c} \boxed{\phantom{00}} & 99 \\ \hline & 102 \end{array}$$

42 + 15 = 57

27 + 15 = 42

7.  $42 - 15 = \boxed{\phantom{00}}$

42 + 24 = 66

24 + 18 = 42

8.  $\boxed{\phantom{00}} + 24 = 42$

Šomiša dinomoro tše tharo tša ka fase ka mekgwa ye mebedi ya go ntšha ya go fapano:

67 + 53 = 120

9.  $\boxed{\phantom{00}} - \boxed{\phantom{00}} = \boxed{\phantom{00}}$

10.  $\boxed{\phantom{00}} - \boxed{\phantom{00}} = \boxed{\phantom{00}}$

Palomoka go 10

<b>Go kgaoletša ka Lesome: Memorantamo</b>			
<b>Molekwanwa pele ga thutwana</b>	<b>Letlakalatšomo la 1</b>	<b>Letlakalatšomo la 2</b>	<b>Molekwanwa ka morago ga thutwana</b>
SERIPA SA PELE	1. 10	1. 53	SERIPA SA PELE
1. 10	2. 10	2. 48	1. 10
2. 10	3. 3	3. 8	2. 10
3. 3	4. 7	4. 8	3. 3
4. 2	5. 9	5. 1	4. 2
5. 8	6. 10	6. 3	5. 8
6. 10	7. 5	7. 29	6. 10
7. 5	8. 2	8. 7	7. 5
8. 6	9. 10	9. 3; 44	8. 7
9. 10	10. 6	10. 53; 5	9. 10
10. 0	11. 2		10. 0
11. 56	12. 5		11. 57
12. 63	13. 56		12. 63
13. 33	14. 54		13. 33
14. 48	15. 22		14. 48
15. 50	16. 1		15. 50
16. 127	17. 26		16. 127
17. 30	18. 44		17. 30
18. 43	19. 56		18. 42
19. 3	20. 53		19. 3
20. 7	21. 40		20. 7
SERIPA SA BOBEDI	22. 20		SERIPA SA BOBEDI
1. 64	23. 6		1. 74
2. 79	24. 33		2. 78
3. 86			3. 86
4. 6			4. 6
5. 75			5. 75
6. 2			6. 2
7. 6			7. 6
8. 54			8. 54
9. 8			9. 8
10. 38			10. 38

<b>Mekgwa ya go Taboga: Memorantamo</b>			
<b>Molekwsana wa pele ga thutwana</b>	<b>Letlakalatšhomo la 1</b>	<b>Letlakalatšhomo la 2</b>	<b>Molekwsana wa ka morago ga thutwana</b>
SERIPA SA PELE	1. 65	1. 76	SERIPA SA PELE
1. 54	2. 33	2. 53	1. 52
2. 39	3. 47	3. 39	2. 39
3. 36	4. 3	4. 53	3. 36
4. 47	5. 60	5. 24	4. 47
5. 17	6. 16	6. 15	5. 17
6. 53	7. 32	7. 20	6. 53
7. 44	8. 59	8. 30	7. 44
8. 4	9. 86	9. 20	8. 3
9. 31	10. 40	10. 29	9. 31
10. 11	11. 64		10. 11
11. 60	12. 46		11. 50
12. 48	13. 46		12. 48
13. 54	14. 60		13. 54
14. 46	15. 53		14. 46
15. 40	16. 63		15. 40
16. 39	17. 54		16. 39
17. 20	18. 75		17. 20
18. 89	19. 30		18. 84
19. 40	20. 37		19. 40
20. 46			20. 46
SERIPA SA BOBEDI			SERIPA SA BOBEDI
1. 59			1. 69
2. 60			2. 60
3. 30			3. 30
4. 20			4. 20
5. 83			5. 83
6. 59			6. 59
7. 22			7. 22
8. 15			8. 15
9. 30			9. 30
10. 25			10. 25

**Pedifatšo le go Ripagare : Memorantamo**

<b>Molekwana wa pele ga thutwana</b>	<b>Thutwana ya go thoma ya 1</b>	<b>Letlakalatšomo la 1</b>	<b>Letlakalatšomo la 2</b>	<b>Molekwana wa ka morago ga thutwana</b>
SERIPA SA PELE	1. Pedifatšo ya 4 ke 8	1. 12	1. 64	SERIPA SA PELE
1. 12	Dihlopha tše pedi tša 4 ke 8	2. 6	2. 52	1. 14
2. 6	Pedi atiša ka 4 ke 8	3. 18	3. 21	2. 7
3. 18	4 x 2 = 8	4. 14	4. 55	3. 18
4. 16	8 arola ka 2 ke 4	5. 8	5. 46	4. 16
5. 6	8 e abagantšwe ka 2 ke 4	6. 9	6. 18	5. 7
6. 8	8 ÷ 2 = 4	7. 20	7. 62	6. 8
7. 20	3. Seripagare sa 8 ke 4	8. 3	8. 31	7. 20
8. 7	8 arola ka 2 ke 4	9. 6	9. 63	8. 6
9. 5	8 e abagantšwe ka 2 ke 4	10. 7	10. 2	9. 5
10. 9	8 ÷ 2 = 4	11. 16	11. 88	10. 9
11. 30	3. 9 ga bedi ke 18	12. 22	12. 76	11. 28
12. 14	Dihlopha tše pedi tša 9 ke 18	13. 16	13. 43	12. 14
13. 14	Pedi atiša ka senyane ke 18	14. 60	14. 52	13. 14
14. 200	9 x 2 = 18	15. 100	15. 78	14. 200
15. 40	9 ÷ 2 = 10	16. 7	16. 24	15. 40
16. 80	20 arola ka 2 ke 10	17. 20	17. 98	16. 80
17. 25	20 e abagantšwe ka 2 ke 10	18. 5	18. 49	17. 25
18. 8	20 ÷ 2 = 10	19. 35	19. 97	18. 9
19. 15	5. Kgetho ya barutwana	20. 140	20. 2	19. 15
20. 120	6. Kgetho ya barutwana			20. 120
SERIPA SA BOBEDI				SERIPA SA BOBEDI
1. 84				1. 84
2. 72				2. 72
3. 32				3. 32
4. 51				4. 51
5. 94				5. 94
6. 19				6. 19
7. 104				7. 104
8. 39				8. 39
9. 77				9. 77
10. 2				10. 2

<b>Go batametša kgauswi ke go Lokiša: Memorantamo</b>			
<b>Molekwanwa pele ga thutwana</b>	<b>Letlakalatšomo Ia 1</b>	<b>Letlakalatšomo Ia 2</b>	<b>Molekwanwa ka morago ga thutwana</b>
SERIPA SA PELE	1. 86	1. 85	SERIPA SA PELE
1. 53	2. 47	2. 16	1. 54
2. 39	3. 29	3. 82	2. 39
3. 47	4. 69	4. 226	3. 47
4. 49	5. 97	5. 144	4. 49
5. 117	6. 40	6. 9	5. 148
6. 83	7. 2	7. 2	6. 83
7. 30	8. 1	8. 30	7. 30
8. 3	9. 400	9. 40	8. 3
9. 3	10. mothlopalo wa mathomo	10. 80 – 40 + 1	9. 3
10. 2			10. 2
11. 71	11. 18		11. 31
12. 78	12. 31		12. 78
13. 41	13. 56		13. 41
14. 175	14. 165		14. 175
15. 37	15. 40		15. 37
16. 50	16. 20		16. 50
17. 1	17. 2		17. 1
18. 100	18. 1		18. 100
19. 200	19. 3		19. 200
20. 2	20. mothlopalo wa bobedi		20. 2
SERIPA SA BOBEDI			SERIPA SA BOBEDI
1. 63			1. 53
2. 45			2. 25
3. 125			3. 125
4. 135			4. 135
5. 294			5. 294
6. 9			6. 9
7. 2			7. 2
8. 30			8. 30
9. 40			9. 40
10. 80 – 60 + 1			10. 60 – 30 + 1

<b>Peakanyoleswa: Memorantamo</b>			
<b>Molekwanwa wa pele ga thutwana</b>	<b>Letlakalatšhomo la 1</b>	<b>Letlakalatšhomo la 2</b>	<b>Molekwanwa ka morigo ga thutwana</b>
SERIPA SA PELE	1. 8 le 2	1. 102	SERIPA SA PELE
1. 7 le 3	2. 4 le 6	2. 57	1. 7 le 3
2. 4 le 6	3. 2	3. 300	2. 4 le 6
3. 4	4. 20	4. 83	3. 3
4. 20	5. 36 le 64	5. 196	4. 20
5. 30 le 70	6. 45 le 55	6. 90	5. 30 le 70
6. 51 le 49	7. 12	7. 3	6. 51 le 49
7. 12	8. 14	8. 9	7. 12
8. 17	9. 6	9. 37	8. 17
9. 9	10. 38	10. 4	9. 9
10. 86	11. 157	11. 74 le 26	10. 86
11. 114	12. 12	12. 2 le 5	11. 132
12. 10	13. 9 le 21		12. 10
13. 8 le 12	14. 17 le 13		13. 8 le 12
14. 4 le 16	15. 120		14. 4 le 16
15. 100	16. 8		15. 100
16. 9	17. 14 le 6		16. 9
17. 18 le 12	18. 12 le 8		17. 18 le 12
18. 14 le 16	19. 13		18. 14 le 16
19. 31	20. 40		19. 31
20. 40			20. 40
SERIPA SA BOBEDI			SERIPA SA BOBEDI
1. 104			1. 105
2. 78			2. 98
3. 300			3. 300
4. 106			4. 106
5. 178			5. 178
6. 70			6. 70
7. 6			7. 8
8. 58			8. 58
9. 3			9. 3
10. 88 le 12			10. 36 le 14

<b>Tswalanya go Hlakantšha le go Ntšha: Memorantamo</b>			
<b>Molekwana wa pele ga thutwana</b>	<b>Letlakalatšhomo la 1</b>	<b>Letlakalatšhomo la 2</b>	<b>Molekwana wa ka morago ga thutwana</b>
1. 4	1. 5	1. 5	1. 6
2. 38	2. 48	2. 299	2. 38
3. 91	3. 85	3. 69	3. 91
4. 6	4. 8	4. 6	4. 6
5. 2	5. 3	5. 4	5. 2
6. 2 le 9	6. 5 le 8 (beakanya ka tsela ya maleba)	6. 5	6. 2 le 9
7. 11	gomme 13 e be ka gare ga poloko ya/lepokisi la ka fase	7. 34	7. 11
8. 297		8. 25	8. 297
9. 5		9. 130 – 52 = 78*	9. 5
10. 2	7. 198	10. 130 – 78 = 52*	10. 2
11. 20 – 5 = 15	8. 6	*Dikarabo di ka boledišanwa	11. 20 – 4 = 16
12. 15 + 5 = 20	9. 3		12. 16 + 4 = 20
13. 20 – 15 = 5	10. 5		13. 20 – 16 = 4
14. 5 + 15 = 20	11. 20 – 3 = 17		14. 4 + 16 = 20
15. 3	12. 17 + 3 = 20		15. 3
16. 2	13. 20 – 17 = 3		16. 2
17. 43	14. 3 + 17 = 20		17. 43
18. 8	15. 4		18. 8
19. 5	16. 3		19. 5
20. 7	17. 54		20. 7
SERIPA SA BOBEDI	18. 8		SERIPA SA BOBEDI
1. 4	19. 5		1. 5
2. 398	20. 7		2. 297
3. 87			3. 87
4. 7			4. 7
5. 2			5. 2
6. 3			6. 3
7. 27			7. 27
8. 18			8. 18
9. 120 – 37 = 83*			9. 120 – 53 = 67*
10. 120 – 83 = 37*			10. 120 – 67 = 53*
*Dikarabo di ka boledišanwa			*Dikarabo di ka boledišanwa.

**Tswalanyo ya go hlakantšha le go ntšha ya thutwana ya go thoma ya 1:  
Mešongwana ya Morutwana**

$3 + 6 = 9 \checkmark$	$6 - 3 = 9 \times$
$9 = 6 + 3 \checkmark$	$9 - 3 = 6 \checkmark$
$6 + 9 = 3 \times$	$3 = 9 - 6 \checkmark$
$6 + 3 = 9 \checkmark$	$9 - 6 = 3 \checkmark$
$3 + 9 = 6 \times$	$3 - 6 = 9 \times$

**Tswalanyo ya go hlakantšha le go ntšha ya thutwana ya go thoma ya 3:  
Mošongwana wa Morutwana**

Ngwala dinomoro tša lapa le tee tšeо di latelago ka gare ga taekramo ya maleba ya ka fase. Bjale, ngwala mafokopalo a go hlakantšha le a go ntšha go nomoro ye nngwe le ye nngwe ya lapa le tee.

$$5 + 5 = 10 \quad 3 + 4 = 7 \quad 11 + 1 = 12 \quad 2 + 7 = 9$$

<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>2</td><td>7</td></tr> <tr> <td colspan="2" style="text-align: center;">9</td></tr> </table> <p>Hlakantšho:</p> $2 + 7 = 9$ $7 + 2 = 9$ $9 = 2 + 7$ $9 = 7 + 2$ <p>Go ntšha:</p> $9 - 2 = 7$ $9 - 7 = 2$ $7 = 9 - 2$ $2 = 9 - 7$	2	7	9		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>11</td><td>1</td></tr> <tr> <td colspan="2" style="text-align: center;">12</td></tr> </table> <p>Go hlakantšha:</p> $11 + 1 = 12$ $1 + 11 = 12$ $12 = 1 + 11$ $12 = 11 + 1$ <p>Go ntšha:</p> $12 - 1 = 11$ $12 - 11 = 1$ $11 = 12 - 1$ $1 = 12 - 11$	11	1	12		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>3</td><td>4</td></tr> <tr> <td colspan="2" style="text-align: center;">7</td></tr> </table> <p>Go hlakantšha:</p> $3 + 4 = 7$ $4 + 3 = 7$ $7 = 3 + 4$ $7 = 4 + 3$ <p>Go ntšha:</p> $7 - 4 = 3$ $7 - 3 = 4$ $4 = 7 - 3$ $3 = 7 - 4$	3	4	7		<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>5</td><td>5</td></tr> <tr> <td colspan="2" style="text-align: center;">10</td></tr> </table> <p>Go hlakantšha:</p> $5 + 5 = 10$ $10 = 5 + 5$ <p>Go ntšha:</p> $10 - 5 = 5$ $5 = 10 - 5$	5	5	10	
2	7																		
9																			
11	1																		
12																			
3	4																		
7																			
5	5																		
10																			

