DIKAHARE

YUNITI 4: HO ATISA

4.1. Ho sheba morao

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Kwetliso ya theibole ya katiso e etsa hore khalkhuleishene ya hlooho ebe ka potlako. E tla o thusa ho sebedisa tsebo ya hao ho Ho rarolla potso efe kapa efe ya ho atisa ka potlako.

1. Tlatsa tse latelang ka pele ka moo ho ka kgonehang.

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

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

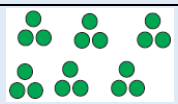
Tekena:		Mohla:	

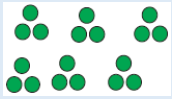
4.2. Ho atisa jwalo ka phethapheto ya ho kopanya

Mohla		*Mosebetsi wa phaposi*			*Mosebetsi wa*

Sefaha sa Busi sa molala se na le difaha tse tsheletseng tse phetaphetilweng makgetlo a mane.
Sena se jwalo ka 6 + 6 + 6 + 6 =24,
e leng ho tshwanang le: 4 × 6 = 24

2. Qetella theibole e latelang.

Daegramo	Ka mantswe	Kopanya	Ho atisa.
		3 + 3 + 3 + 3 = 12	
	Dihlopha tse pedi tsa tshelela		
			
			3 × 5 = 15
			

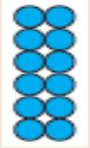
Daegramo	Ka mantswe	Ho kopanya	Ho atisa.
		3 + 3 + 3 + 3 = 12	
	Dihlopha tse pedi tsa tshelela		
			
			3 × 5 = 15
			

Tekena:		**Mohla:**	

4.3. Diprophathi tsa dinomoro

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Ithute tse latelang. Taka daegramo ya hao ho bontsha hona.

Mohlala:	2 × 6		6 × 2
		=	

a).	2 × 7 = 7 × 2	2 × 7 = 7 × 2
b).	3 × 3 = 3 × 3	3 × 3 = 3 × 3
c).	3 × 4 = 4 × 3	3 × 4 = 4 × 3
d).	4 × 5 = 4 × 5	4 × 5 = 4 × 5

Tekena:		Mohla:	

4.4. Diprophathi tsa dinomoro, di a tswelliswa

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Qetella tse latelang:

a).	$2 \times (2 \times 3) = (2 \times 2) \times 3$ $2 \times 6 = 4 \times$ _____ $12 = 12$	$2 \times (2 \times 3) = (2 \times 2) \times 3$ $2 \times 6 = 4 \times$ _____ $12 = 12$
b).	$2 \times (3 \times 1) = (3 \times 2) \times 1$ $2 \times 3 =$ _____ $\times 1$ _____ = _____	$2 \times (3 \times 1) = (3 \times 2) \times 1$ $2 \times 3 =$ _____ $\times 1$ _____ = _____
c).	$4 \times (3 \times 2) = (4 \times 3) \times$ _____ _____ $\times 6 = 12 \times 2$ $24 = 24$	$4 \times (3 \times 2) = (4 \times 3) \times$ _____ _____ $\times 6 = 12 \times 2$ $24 = 24$
d).	$8 \times (1 \times 5) = (8 \times 1) \times 5$ _____ $\times 5 =$ _____ $\times 5$ _____ $= 40$	$8 \times (1 \times 5) = (8 \times 1) \times 5$ _____ $\times 5 =$ _____ $\times 5$ _____ $= 40$

2. Qetella tse latelang

a).	$4 \times (2 + 3) = (4 \times 2) + ($____ $\times 3) = 20$	$4 \times (2 + 3) = (4 \times 2) + ($____ $\times 3) = 20$
b).	$6 \times (5 + 2) = (6 \times 5) + (6 \times$ ____$) = 42$	$6 \times (5 + 2) = (6 \times 5) + (6 \times$ _____$) = 42$
c).	$7 \times (3 + 5) = (7 \times$ ____$) + (7 \times 5) = 56$	$7 \times (3 + 5) = (7 \times$ ____$) + (7 \times 5) = 56$
d).	$8 \times (5 - 3) = (8 \times$ ____$) - (8 \times 3) = 16$	$8 \times (5 - 3) = (8 \times$ ____$) - (8 \times 3) = 16$
e).	$9 \times ($____ $- 5) = (9 \times 7) - (9 \times 5) = 18$	$9 \times ($____ $- 5) = (9 \times 7) - (9 \times 5) = 18$

Tekena:		Mohla:	

4.5. Ho atisa le ho arola e le diinvese oporeishene

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Qetella tse latelang:

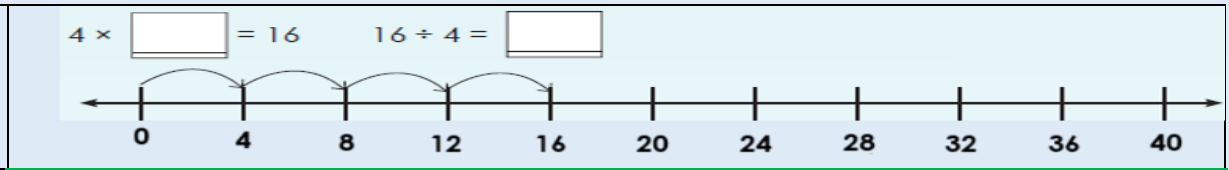
Mohlala

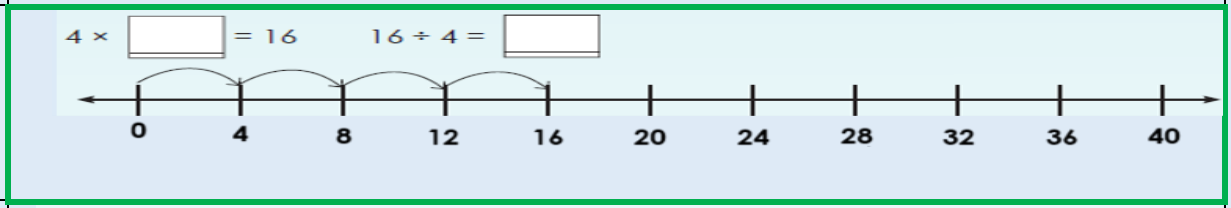
5 × 4	=	20	**Ka hoo** 20 ÷	4	=	5	**Kapa** 20 ÷	5	= 4
72 ÷ 12	=	6	**Ka hoo** 12 ×	6	=	72	**Kapa** 6 ×	12	= 72

a)	3 × 4	=		**Ka hoo** 12 ÷		=	3	**Kapa** 12 ÷		= 4
	3 × 4	=		**Ka hoo** 12 ÷		=	3	**Kapa** 12 ÷		= 4
b)	18 × 2	=		**Ka hoo** 36 ÷		=	18	**Kapa** 36 ÷		= 2
	18 × 2	=		**Ka hoo** 36 ÷		=	18	**Kapa** 36 ÷		= 2
c)	50 ÷ 5	=		**Ka hoo** 5 ×		=	50	**Kapa** 10 ×		= 50
	50 ÷ 5	=		**Ka hoo** 5 ×		=	50	**Kapa** 10 ×		= 50
d)	60 ÷ 12	=		**Ka hoo** 5 ×		=	60	**Kapa** 5 ×		= 60
	60 ÷ 12	=		**Ka hoo** 5 ×		=	60	**Kapa** 5 ×		= 60

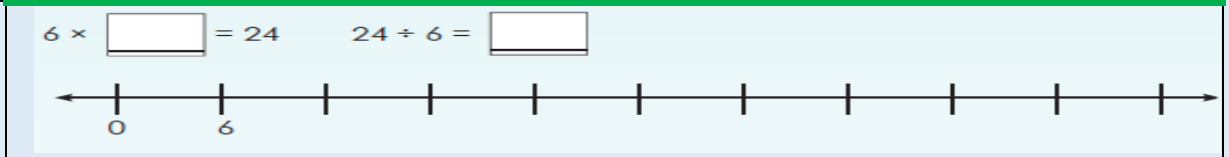
2. Qetella tse latelang mme o bontshe ho atisa molapalong.

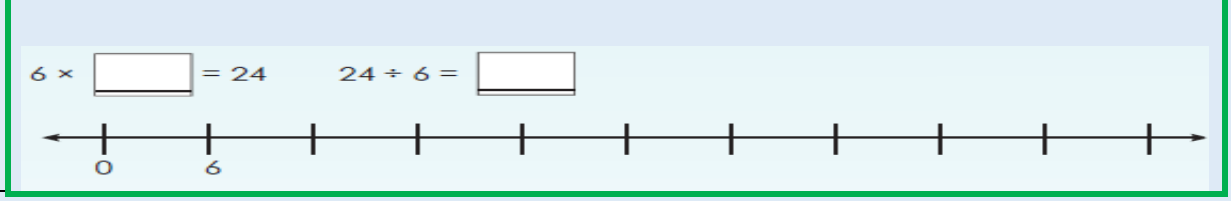
a)





b)





Tekena:		Mohla:	

4.6. Ho atisa le ho arola e le diinvese oporeishene, di ya tswelliswa

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Tlatsa ka ×, ÷, +,–, le = dibakeng tse nepahetseng.

a)	6		3		18		6		3		18
b)	18		3		6		18		3		6
c)	18		6		3		18		6		3
d)	6		6		36		6		6		36
e)	36		6		6		36		6		6
f)	12		2		24		12		2		24
g)	24		2		12		24		2		12
h)	24		12		2		24		12		2
i)	81		9		9		81		9		9
j)	9		9		81		9		9		81
k)	28		7		4		28		7		4
l)	28		4		7		28		4		7
m)	7		4		28		7		4		28
n)	30		3		60		30		3		60
o)	60		3		20		60		3		20
p)	60		30		2		60		30		2
q)	7		6		42		7		6		42
r)	42		6		7		42		6		7
s)	42		7		6		42		7		6
t)	33		11		3		33		11		3
u)	3		11		33		3		11		33

Tekena:		Mohla:	

4.7. Phethapheto ya ho kopanya le ho atisa

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Ngola tse latelang jwalo ka phethapheto ya ho kopanya, ebe ho atisa:

Mohlala:

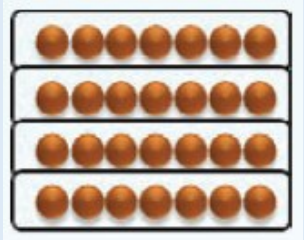
i. **Dihlopha tse 3 tsa 2**
ii. **Bo2 ba bararo**
iii. Phethapheto ya ho kopanya: 2 + 2 + 2 = 6
iv. Ho atisa: 3 × 2 = 6

a)

i. Mela e ___ ya ____kapa dihlopha tse_____ tsa _____
ii. _____
iii. Phethapheto ya ho kopanya: _____
iv. Ho atisa: _____

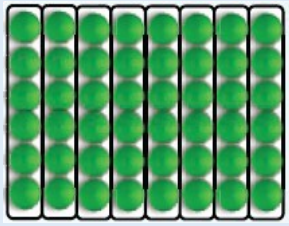
i. Mela e ___ya ___ kapa dihlopha tse _____ tsa _____
ii. _____
iii. Phethapheto ya ho kopanya: _____
iv. Ho atisa: _____

b)



i. Mela e ____ya ___ kapa dihlopha tse _____ tsa _____
ii. _____
iii. Phethapheto ya ho kopanya: _____
iv. Ho atisa: _____

i. Mela e ____ya ____kapa dihlopha tse _____ tsa _____
ii. _____
iii. Phethapheto ya ho kopanya: _____
iv. Ho atisa: _____

c) 	i. Mela e ____ya ___kapa dihlopha tse _____ tsa _____ ii. _____ iii. Phethapheto ya ho kopanya: _____ iv. Ho atisa: _____
	i. Mela e ____ya ____kapa dihlopha tse _____ tsa _____ ii. _____ iii. Phethapheto ya ho kopanya: _____ iv. Ho atisa: _____

2. Tlatsa nomoro e siilweng.

$4 \times \square = 8$	$4 \times \square = 80$	$2 \times \square = 800$
$9 \times \square = 27$	$9 \times \square = 270$	$9 \times \square = 2\,700$
$4 \times \square = 8$	$4 \times \square = 80$	$2 \times \square = 800$
$9 \times \square = 27$	$9 \times \square = 270$	$9 \times \square = 2\,700$

3. Fumana prodakte.

a)	2 × 3 = _____	2 × 3 = _____
b)	3 × 2 × 3 = _____	3 × 2 × 3 = _____
c)	5 × 4 × 2 = _____	5 × 4 × 2 = _____
d)	5 × 2 × 9 = _____	5 × 2 × 9 = _____
e)	2 × 2 × 2 × 5 = _____	2 × 2 × 2 × 5 = _____

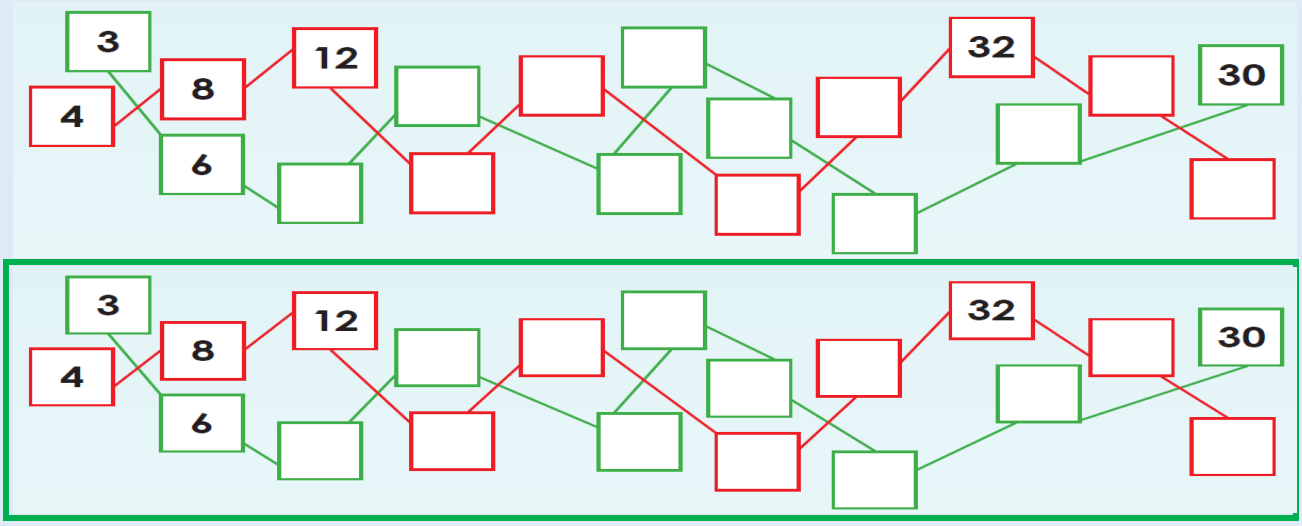
Tekena:		**Mohla:**	

4.8. Dimalthipole

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

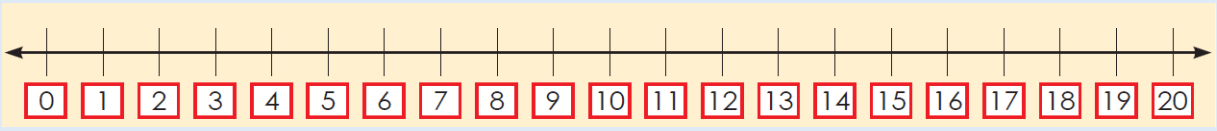
Dimalthipole tsa nomoro di ka etswa ka ho atisa nomoro ka houlunomoro le ha e le efe. Dimalthipole tsa pele tse tharo tsa 2 kantle ho 0 ke 2, 4, le 6. O di fumana ka ho etsa 2 × 1, 2 × 2, 2 × 3.

1. Qetella dipaterone tsena tsa dimalthipole.

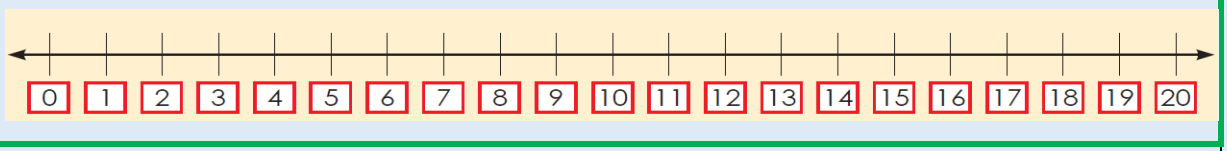


2. Bontsha dimalthipole melapalong e latelang.

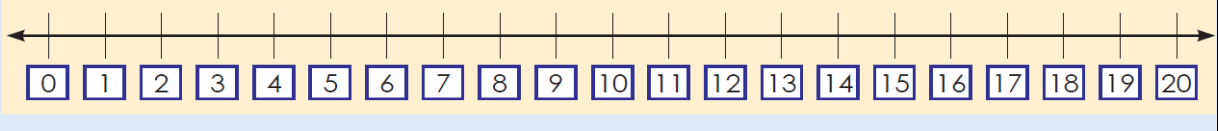
a) Dimalthipole tsa 5



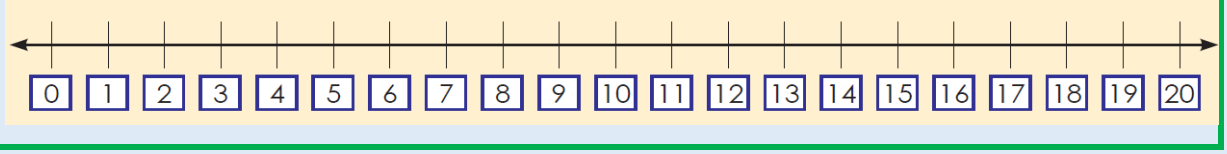
Dimalthipole tsa 5

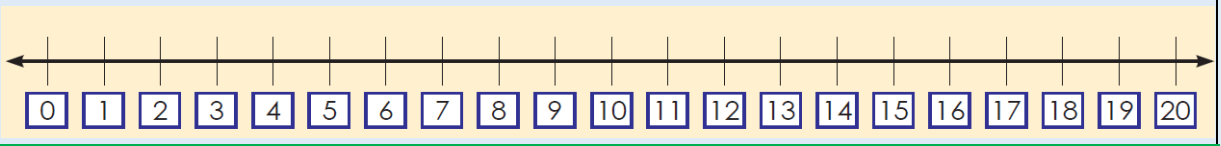
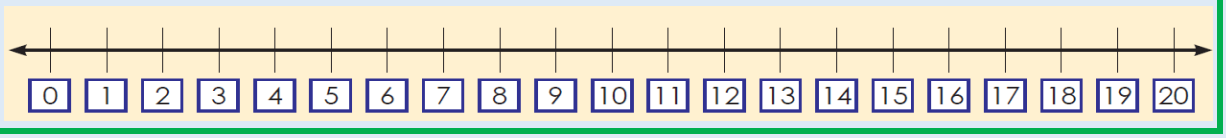


b) Dimalthipole tsa 3

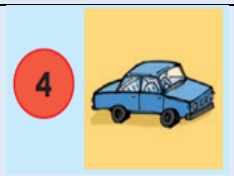
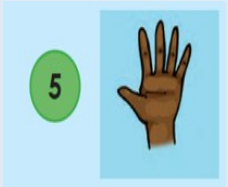
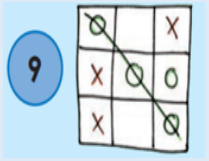


Dimalthipole tsa 3



c)	Dimalthipole tsa 6 
	Dimalthipole tsa 6 

3. Qetella tse latelang jwalo ka ha ho bontshitswe mohlaleng wa (a).

a)	 	Dikoloi tse 5 di ka ba le mabidi a makae?	**Ha re khaontheng:** 4, 8, 12, 16, 20 Ho na le mabidi a 20
b)	 	Batho ba supileng ba ka ba le menwana e mekae ya maoto?	
c)	 	Mabokose a 7 a halofo ya dosene a ka tshwara mahe a makae?	
d)	 	Matsoho a 10 a ka ba le menwana e mekae?	
e)	 	Dikgo tse 9 di ka ba le maoto a makae?	
f)	 	Ke dikwere tse kae tse nyane tse ka bang ho diboto tse 5 tsa "Noughts le crosses"?	

Tekena:		**Mohla:**	

4.9. Dimalthipole di a tswelliswa.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Dinomoro tse latelang ke Dimalthipole tsa:

a)	10; 20; 30; 40; 50; 60; …		
b)	6; 12; 18; 24; 30; . . .		
c)	8; 16; 24; 32; 40; 48; …		
d)	7; 14; 21; 28; 35; . . .		
e)	9; 18; 27; 36; 45; …		

2. Qetella tse latelang:

a)	20 ke malthepole ya 5, hobane	**4**	×	**5**	=	**20**	**4**	×	**5**	=	**20**
b)	20 ke malthipole ya 5, hobane		×		=	**20**		×		=	**20**
c)	42 ke malthipole ya 6, hobane		×		=	**42**		×		=	**42**
d)	42 ke malthipole ya 6, hobane		×		=	**42**		×		=	**42**
e)	56 ke malthipole ya 7, hobane		×		=	**56**		×		=	**56**
f)	56 ke malthipole ya 7, hobane		×		=	**56**		×		=	**56**
g)	64 ke malthipole ya 8, hobane		×		=	**64**		×		=	**64**

3. Qetella tse latelang:

×	1	2	3	4	5	6	7	8	9	10
3	3	6	9	12	15					
	3 × 1	3 × 2	3 × 3	3 × 4	3 × 5	3 × 6	3 × 7	3 × 8	3 × 9	3 × 10

×	1	2	3	4	5	6	7	8	9	10
3	3	6	9	12	15					
	3 × 1	3 × 2	3 × 3	3 × 4	3 × 5	3 × 6	3 × 7	3 × 8	3 × 9	3 × 10

Tekena:		Mohla:	

4.10. Difektha

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

• 1 le 8 ke para ya difektha tsa 8 hobane 1 × 8 = 8 • 2 le 4 ke para ya difektha tsa 8 hobane 2 × 4 = 8 Ka hoo: 1, 2, 4 le 8 ke difektha tsa 8	• 1 le 12 ke para ya difektha tsa 12 hobane 1 × 12 = 12 • 2 le 6 ke para ya difektha tsa 12 hobane 2 × 6 = 12 • 3 le 4 ke para ya difektha tsa 12 hobane 3 × 4 = 12 Ka hoo: 1, 2, 3, 4, 6 le 12 ke difektha tsa 12

1. Ngola difektha kaofela tsa dinomoro tse latelang:

a)	5		
b)	9		
c)	10		
d)	14		
e)	21		
f)	45		
g)	99		

2. Nyalanya kholomo ya A le ya B ho fumana difektha tsa dinomoro tseo o di fuweng:

	Kholomo A	Kholomo B	Kholomo A	Kholomo B
a)	Fektha ya 18	7	Fektha ya 18	7
b)	Fektha ya 16	9	Fektha ya 16	9
c)	Fektha ya 21	19	Fektha ya 21	19
d)	Fektha ya 39	8	Fektha ya 39	8
e)	Fektha ya 57	13	Fektha ya 57	13

3. Ke efe eo e seng fektha ya 75 ho tse latelang? Bontsha ka ho sebedisa letshwao la sefapano ho bontsha.

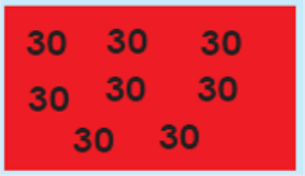
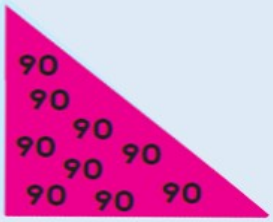
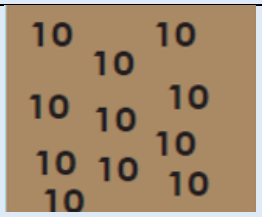
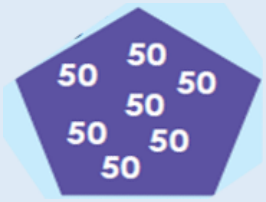
1	3	6	15	25	75		1	3	6	15	25	75

Tekena:		Mohla:	

4.11. Ho atisa bonyane dinomoro tsa dijiti tse 2 ka dinomoro tsa dijiti e 1.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Sebedisa ho atisa ho fumana kakaretso ya sheipi ka nngwe.

2. Qetella theibole e ka tlase.

Nomoro	× 10	× 20	× 30	× 40	× 50		× 10	× 20	× 30	× 40	× 50
4											
5											
6											
7											
8											
9											

3. Khalkhuleitha o sebedisa mokgwa wa ho qhaqha dinomoro.

Mohlala:

4 × 16
= 4 × (10 + 6)
= (4 × 10) + (4 × 6)
= 40 + 24
= 64

6 × 25
= 6 × (20 + 5)
= (6 × 20) + (6 × 5)
= 120 + 30
= 150

a)	8 × 16	8 × 16

b)	4 × 35	4 × 35

c)	9 × 68	9 × 68

d)	7 × 14	7 × 14

e)	3 × 57	3 × 57

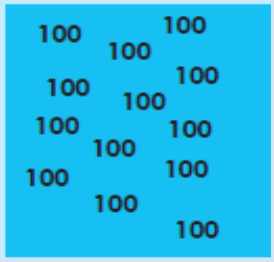
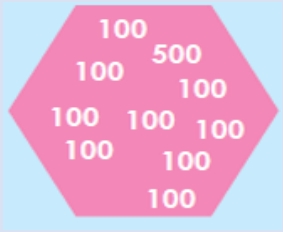
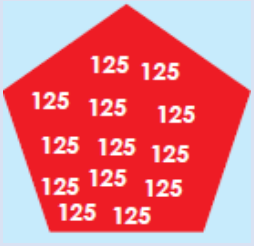
f)	5 × 19	5 × 19

Tekena:		**Mohla:**	

4.12. Ho atisa bonyane dinomoro tsa dijiti tse 2 ka dinomoro tsa dijiti tse 2.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Khalkhuleitha kakaretso ya dinomoro sheiphing ka nngwe. Sebedisa ho atisa.

2. Qetella theibole e ka tlase.

Nomoro	× 10	× 20	× 30	× 40	× 50		× 10	× 20	× 30	× 40	× 50
10											
20											
30											
40											
50											
60											
70											
80											
90											

Tekena:		Mohla:	

4.13. Ho atisa bonyane dinomoro tsa dijiti tse 2 ka dinomoro tsa dijiti 2 o sebedisa mokgwa wa ho qhaqha dinomoro.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Sebedisa mokgwa o ka tlase ho khalkhuleitha.

Mohlala:	
11 × 12 = (10 + 1) × (10 + 2) = (10 × 10) + (1 × 10) + (10 × 2) + (1 × 2) = 100 + 10 + 20 + 2 = 100 + 30 + 2 = 132	48 × 36 = (40 + 8) × (30 + 6) = (40 × 30) + (8 × 30) + (40 × 6) + (8 × 6) = 1 200 + 240 + 240 + 48 = 1 000 + 200 + 200 + 200 + 40 + 40 + 40 + 8 = 1 000 + 600 + 120 + 8 = 1 000 + 600 + 100 + 20 + 8 = 1 728

a).	28 × 71

	28 × 71

b).	29 × 63

	29 × 63

Tekena:		**Mohla:**	

4.14. Tshebediso ya difektha ho atisa.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Mohlala:	Khalkhuleitha 92 × 12
Khalkhuleitha 47 x 6	= 92 × 2 × 2 × 3
= 47 × 2 × 3	= 184 × 2 × 3
= 94 × 3	= 368 × 3
= (90 + 4) × 3	= (300 + 60 + 8) × 3
=90 × 3 + 4 × 3	=300 × 3 + 60 × 3 + 8 × 3
= 270 + 12	= 900 + 180 + 24
= 282	= 1 000 + 104
	= 1 104

Khalkhuleitha:

a)	23 × 12	23 × 12

b)	45 × 24	45 × 24

Tekena:		Mohla:	

4.15. Tshebediso ya aproksimeishene ho atisa.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Aproksimeishene e kenyelletsa ho atametsa dinomoro haufi le Dimalthipole tsa mashome, makgolo, dikete, jwalojwalo.

Mohlala:

46 × 58	46 × 58
≈ 46 × 60 (ka ho aproksimeita nomoro ya 2)	≈ 50 × 58 (ka ho aproksimeita nomoro ya 1)
≈ (40 + 6) × 60	≈ 50 × (50 + 8)
≈ (40 × 60) + (6 × 60)	≈ (50 × 50) + (50 × 8)
≈ 2 400 + 360	≈ 2 500 + 400
≈ 2 760	≈ 2 900

HLOKOMELA: Hoba haufi ha aproksimete namba le malthipole ya leshome, ho molemo ho akanya. 46 × 58 = 2 668. Aproksimete ya 1 (2 760) e molemo ho feta aproksimete ya 2 (2 900) hobane 58 e haufi le malthipole ya leshome ho feta 46.

1. Khalkhuleitha tse latelang ka aproksimeishene.

a)	23 × 39	23 × 39

b)	48 × 63	48 × 63

c)	26 × 46	26 × 46

d)	38 × 65	38 × 65

e)	54 × 41	54 × 41

f)	55 × 98	55 × 98

Tekena:		**Mohla:**	

4.16. Ho atisa o sebedisa daboling le halving.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Ho sebedisa daboling le halving ha o atisa, o dabola e le nngwe ya dinomoro o be o etsa halofo ya e nngwe.

Mohlala:

16 × 25
= 8 × 50
= 4 × 100
= 400

80 × 55
= 40 × 110
= 20 × 220
= 10 × 440
= 4 400

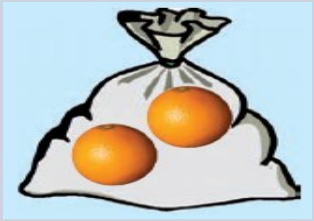
1. Khalkhuleitha ka ho sebedisa mohlala o bontshitsweng ka hodimo.

a).	40 × 8	40 × 8
b).	16 × 35	16 × 35
c).	75 × 24	75 × 24

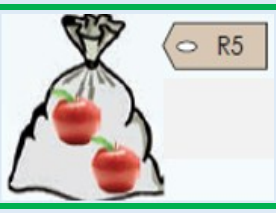
Tekena:		Mohla:	

4.17. Bothata bo kenyelletsang reiti.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Mohlala Tjeo ya mokotla wa dilamunu ke R4. Lamunu ka nngwe ke bokae? 	R4 ÷ 2 = R2 Ka hoo, tjeo ya lamunu ka nngwe ke R2. Letshwao le sebediswang bakeng sa reiti ke **ka nngwe** **Mohlala: R2 lamunu ka nngwe.**

1. Qetella tse latelang:

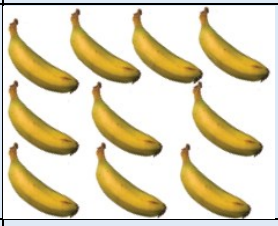
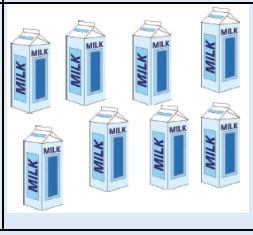
a)	 Tjeo ke R_____ bakeng sa lamunu ka nngwe.	 Tjeo ke R_____ bakeng sa lamunu e le nngwe.
b)	 Tjeo ke R_____ bakeng sa lamunu ka nngwe.	 Tjeo ke R_____ bakeng sa lamunu ka nngwe.
c)	 Tjeo ke R_____ bakeng sa apole ka nngwe.	 Tjeo ke R_____ bakeng sa apole ka nngwe.
d)	 Tjeo ke R_____ bakeng sa panana ka nngwe.	 Tjeo ke R_____ bakeng sa panana ka nngwe.
e)	 Tjeo ke R_____ bakeng sa apole ka nngwe.	 Tjeo ke R_____ bakeng sa apole ka nngwe.

Tekena:		**Mohla:**	

4.18. Bothata bo kenyelletsang maemo a reiti.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Araba tse latelang.

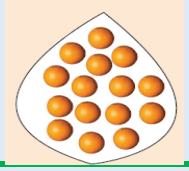
a)	Diapole tsohle di ya lekana. Ke bokae diapole kaofela ha apole e le nngwe e le R2? 		
b)	 Dipanana kaofela di ya lekanana. Ke bokae dipanana tsena ha panana e le nngwe e etsa R1.50?		
c)	Kgoho e theotswe ke R25/kg. 2 kg e tla etsa bokae? 		
d)	 Lebese le etsa R10/litara. 4 ℓ ya lebese e etsa bokae? Hlokomela: lebokose le 1 = 1ℓ		

2. Ho rarolla tse latelang ka ho sheba molapalong.

a) 600 g ya tjhisi e tla etsa bokae?

3. Tjeo ya mokotla wa dilamunu ke R15.

Lamunu e le nngwe e tla etsa bokae haeba di lekana?

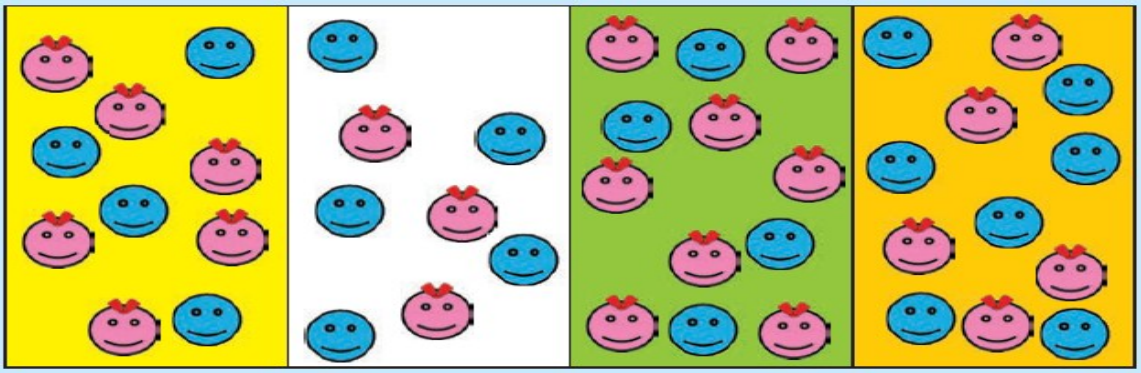


Tekena:		Mohla:	

4.19. Bothata bo kenyelletsang reshiyo.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Ke banana le bashemane ba bakae ka lebokoseng ka leng?



Khii:
= *Moshemane*

= *Ngwanana*

Tlelase	Banana	Bashemane	Banana	Bashemane
Tshehla	6	4		
Tshweu				
Tala				
Mmala wa lamunu				

2. Kopi e na le dinawa tse 120. Ho dinawa kaofela tse 80 ke dinawa tse tshweu tse setseng ke dinawa tse kgubedu. Dinawa tse kgubedu di kae?

3. Diile o bokelletse dibotlolo tse 65 bakeng sa risaekiling? Motswalle wa hae o ile a bokella dibotlolo tse ngata ho feta Diile ka makgetlo a leshome le metso e mmedi. Motswalle o ile a bokella dibotlolo tse kae?

Tekena:		Mohla:	

4.20. Ho rarolla bothata

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Mohlala

Motswadi o fa sekolo mekotla e robong ya dibolo. Mokotla ka mong o na le dibolo tse 6. Motswadi o fana ka dibolo tse kae?

- *Potso e reng?* Motswadi o fana ka dibolo tse kae?
- *Dinomoro ke dife?* 9 (mekotla) le 6 (dibolo ka hara mokotla)
- *Ke oporeishene efe e lokelang ho sebediswa?* Ho atisa (×).
- *Taka setshwantsho.*

- *Ngola polelopalo.* $9 \times 6 = \Delta$
- *Bontsha khalkhuleishene.* $9 \times 6 = 54$

Karabo: Motswadi o fana ka dibolo tse 54.

1. Ho rarolla mathata a latelang:

a) Rapolasi o lema mela e 8 ya difate tsa diapole. Ho na le difate tse 7 tsa diapole moleng ka mong. Ho na le difate tse kae tsa diapole ka kakaretso?

b) Mme wa Puleng o reka dipizza tse 5. Pizza ka nngwe e kgaotswe dikotwana tse nne. Ho na le dikotwana tse kae ka kakaretso?

Tekena:		Mohla:	

4.21. Ho rarolla bothata, ho ya tswelliswa

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Kgosatsana o na le metswalle e meraro. Motswalle ka mong o na le dipompong tse mashome a mabedi. Ke dipompong tse kae tseo ba nang le tsona hammoho?

2. Ho na le bana ba 38 tlelaseng ya rona. Ngwana ka mong o lokela ho lefa R45 bakeng sa dingolwa tsa hae. Titjhere e tlameha ho bokella tjhelete e kae?

3. Mme o file Bokang le Puleng dipompong tse 18. Puleng o fumane dipompong tse 6. Bokang o fumane dipompong tse kae ho feta Puleng?

4. Ralebenkele o rekisa dilitara tse 98 tsa lebese ka beke e le nngwe. O tla be a rekisitse dilitara tse kae ka dibeke tse 12?

Tekena:		Mohla:	

4.22. Ho rarolla mathata, di ya tswelliswa

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Theko ya diapole tse 3 lebenkeleng ke R3,00. Theko ya diapole tse 5 tse tshwanang ke R4,50. Ho molemo ho reka dife?

2. Moketeng ho hlokahala dino-maphodi tse 10 bakeng sa baeti ba bang le ba bang ba 12. Ho hlokahala dino-maphodi tse kae haeba ho na le baeti ba 60?

3. Papadi ya khomphiyutha e ja R199. Ntate wa ka o rekile tse pedi. O lefile bokae?

4. Ho na le dikgoho le dintja habo Reabetswe. Palo kaofela ya dihlooho tsa dikgoho le dintja ke 10. Palo kaofela ya maoto a dikgoho le dintja ke 26. Ho na le dikgoho tse kae?

Tekena:		Mohla:	

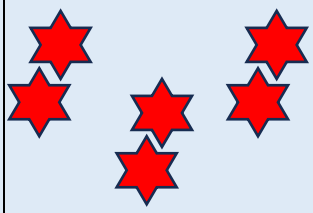
YUNITI 5: HO AROLA

5.1. Ho atisa le ho arola e le diinvese oporeishene

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Qetella tse latelang jwalo ka ha ho bontshitswe mohlaleng:

a)



Ho atisa.

Dihlopha tse 3 tsa 2

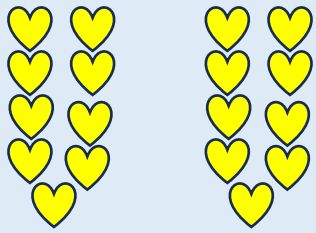
3 × 2 = 6

Ho arola

6 e arolwa dipakeng tsa dihlopha tse 3

6 ÷ 3 = 2

b)



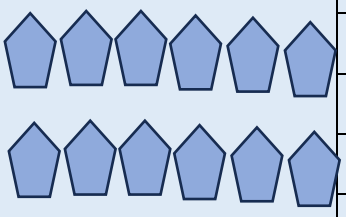
Ho atisa.

Ho arola

Ho atisa.

Ho arola

c)



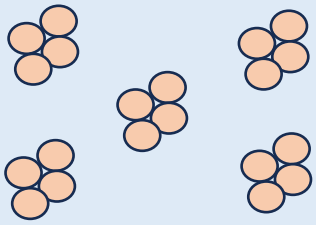
Ho atisa.

Ho arola

Ho atisa.

Ho arola

d)



Ho atisa.

Ho arola

Ho atisa.

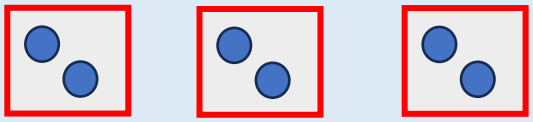
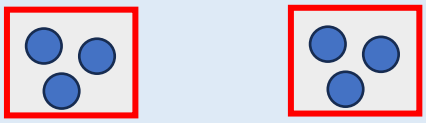
Ho arola

Tekena:		Mohla:	

5.2. Ho hlopha le ho arolelana

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Ditshwantsho tse ka tlase di bontsha ho arolelana dipakeng tsa pedi le dihlopha ka bo 2.

	
A	**B**

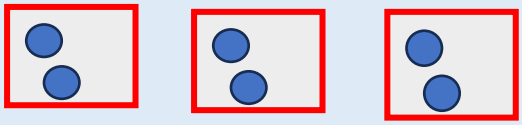
a) Ke efe e emelang ho hlopha ka bo 2?

b) Ke efe e emelang ho arolelana dipakeng tsa pedi?

c) Ke polelo efe e bontshang ho arolelana pakeng tsa pedi mme ke efe e bontshang ho hlopha ka bo2? Ngola A kapa B lebokoseng le dumellanang le polelo e nepahetseng.

Dipompong tse 6 di arolwa ka ho lekana dipakeng tsa barutwana ba babedi.		
Ho na le dipompong tse 6. Ke barutwana ba bakae ba ka fumanang dipompong tse 2 ka mong?		

2. Ngola polelopalo bakeng sa polelo ka nngwe.

A			
B			

3. Rala bothata bo bontshang 4 × 3 = 12

Tekena:		Mohla:	

5.3. Ho hlopha le ho arolelana

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Bolela hore na se seng le se seng sa tse latelang ke mohlala wa ho hlopha kapa wa ho arolelana.

a) Ho na le diapole tse 18. Ke bana ba bakae ba fumanang tse 3 ka mong?		
b) Dilamunu tse tharo di pakilwe ka baseketeng. Ke dibasekete tse kae tseo o ka di tlatsang ka dilamunu tse 18, ha o beha palo e lekanang ya dilamunu ho e nngwe le e nngwe?		
c) Pensele e le nngwe e bitsa R7. Nka reka dipensele tse kae tsa mofuta o tshwanang ka R28?		
d) Ke hloka dithutswana tsa mollo tse 3 ho etsa sheyiphi e le nngwe ya traengele. Nka etsa disheyiphi tse kae tsa traengele ka dithutswana tsa mollo tse 84?		
e) Ditjhokolete tse 6 di lekana ka lebokoseng le le leng. Haeba ke na le ditjhokolete tse 72, ke tla hloka mabokose a makae?		
f) Ke hloka ditulo tse 80 bakeng sa mokete. Ke di hlophisa ka bo10 tafoleng ka nngwe. Ke hloka ditafole tse kae?		

2. Ngola polelopalo ho Ho rarolla polelo ka nngwe e ho (1) ka hodimo mme o ngole invese oporeishene bakeng sa e nngwe le e nngwe.

	Polelopalo		Invese oporeishene	
a)				
b)				
c)				
d)				
e)				
f)				

Tekena:		Mohla:	

5.4. Ho arola le dipaterone

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Qetella tse latelang:

30 ÷ 3 = ☐	300 ÷ 3 = ☐	30 ÷ 3 = ☐	300 ÷ 3 = ☐
27 ÷ 3 = ☐	270 ÷ 3 = ☐	27 ÷ 3 = ☐	270 ÷ 3 = ☐
24 ÷ 3 = ☐	240 ÷ 3 = ☐	24 ÷ 3 = ☐	240 ÷ 3 = ☐
21 ÷ 3 = ☐	210 ÷ 3 = ☐	21 ÷ 3 = ☐	210 ÷ 3 = ☐
18 ÷ 3 = ☐	180 ÷ 3 = ☐	18 ÷ 3 = ☐	180 ÷ 3 = ☐
15 ÷ 3 = ☐	150 ÷ 3 = ☐	15 ÷ 3 = ☐	150 ÷ 3 = ☐
12 ÷ 3 = ☐	120 ÷ 3 = ☐	12 ÷ 3 = ☐	120 ÷ 3 = ☐
9 ÷ 3 = ☐	90 ÷ 3 = ☐	9 ÷ 3 = ☐	90 ÷ 3 = ☐

50 ÷ 5 = ☐	500 ÷ 5 = ☐	50 ÷ 5 = ☐	500 ÷ 5 = ☐
45 ÷ 5 = ☐	450 ÷ 5 = ☐	45 ÷ 5 = ☐	450 ÷ 5 = ☐
40 ÷ 5 = ☐	400 ÷ 5 = ☐	40 ÷ 5 = ☐	400 ÷ 5 = ☐
35 ÷ 5 = ☐	350 ÷ 5 = ☐	35 ÷ 5 = ☐	350 ÷ 5 = ☐
30 ÷ 5 = ☐	300 ÷ 5 = ☐	30 ÷ 5 = ☐	300 ÷ 5 = ☐
25 ÷ 5 = ☐	250 ÷ 5 = ☐	25 ÷ 5 = ☐	250 ÷ 5 = ☐
20 ÷ 5 = ☐	200 ÷ 5 = ☐	20 ÷ 5 = ☐	200 ÷ 5 = ☐
15 ÷ 5 = ☐	150 ÷ 5 = ☐	15 ÷ 5 = ☐	150 ÷ 5 = ☐
10 ÷ 5 = ☐	100 ÷ 5 = ☐	10 ÷ 5 = ☐	100 ÷ 5 = ☐

Tekena:		Mohla:	

5.5. Ho arola le dipaterone, di a tswelliswa

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Khalkhuleishene e potlakileng. Sheba kgokahano

30 ÷ 3 = ____	15 ÷ 3 = ____	60 ÷ 3 = ____	600 ÷ 3 = ____
150 ÷ 3 = ____	24 ÷ 4 = ____	24 ÷ 8 = ____	240 ÷ 4 = ____
120 ÷ 4 = ____	12 ÷ 4 = ____	40 ÷ 10 = ____	40 ÷ 5 = ____
400 ÷ 10 = ____	400 ÷ 5 = ____	200 ÷ 5 = ____	18 ÷ 2 = ____
36 ÷ 2 = ____	72 ÷ 2 = ____	72 ÷ 4 = ____	72 ÷ 8 = ____

30 ÷ 3 = ____	15 ÷ 3 = ____	60 ÷ 3 = ____	600 ÷ 3 = ____
150 ÷ 3 = ____	24 ÷ 4 = ____	24 ÷ 8 = ____	240 ÷ 4 = ____
120 ÷ 4 = ____	12 ÷ 4 = ____	40 ÷ 10 = ____	40 ÷ 5 = ____
400 ÷ 10 = ____	400 ÷ 5 = ____	200 ÷ 5 = ____	18 ÷ 2 = ____
36 ÷ 2 = ____	72 ÷ 2 = ____	72 ÷ 4 = ____	72 ÷ 8 = ____

2. Ho (1), khalara dikhalkhuleishene tseo o di hokahantseng ka mmala o tshwanang mme o fane ka mabaka a hore na ke hobaneng ha o di hokahanya.

Mmala	Mabaka	Mabaka

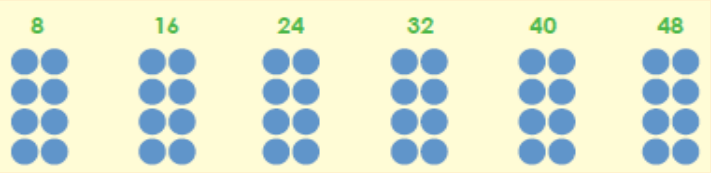
Tekena:		Mohla:	

5.6. Ho arola dinomoro tsa dijiti tse 2 ka dinomoro tsa dijiti e le 1.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Ithute mohlala o latelang: Khalkhuleitha 48 ÷ 8 =

Mohlala 1: Re ka ipotsa hore na re tla fumana dihlopha tse kae tsa 8 ho tswa ho 48? Ha re khaontheng.



Ho na le dihlopha tse 6 tsa 8 ho 48. ∴ 48 ÷ 8 = 6

Mohlala 2: Haeba re arola dintho tse 48 dipakeng tsa batho ba 8, e mong le e mong o tla fumana tse kae? Ha re aroleng

Haeba re arola 48 dipakeng tsa batho ba 8, re fumana 6.

∴ 48 ÷ 8 = 6

Hape re ka sebedisa theibole.

1 × 8 = 8	
2 × 8 = 16	
3 × 8 = 24	
4 × 8 = 32	
5 × 8 = 40	
6 × 8 = 48	
7 × 8 = 56	
8 × 8 = 64	
9 × 8 = 72	

1. Sebedisa o mong wa mehlala e mmedi ho khalkhuleitha tse latelang.

a) 30 ÷ 5

b) 42 ÷ 7

c) 54 ÷ 9

Tekena:		Mohla:	

5.7. Ho arola dinomoro tsa dijiti tse 3 ka dinomoro tsa dijiti e le 1.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Ithute mehlala e latelang: Khalkhuleitha 485 ÷ 8 =

Mohlala 1: Re ka ipotsa hore na re tla fumana dihlopha tse kae tsa 8 ho 485? Ha re khaontheng.

10 groups of 8 is 80
20 groups of 8 is 160
30 groups of 8 is 240
40 groups of 8 is 320
50 groups of 8 is 400
60 groups of 8 is 480
70 groups of 8 is 560

Dihlopha tse 60 tsa 8 di tla re fa 480
Dihlopha tse mashome a tsheletseng tsa 8 di tla re fa 480 ho sale 5.
∴ **485 ÷ 8 = 60 rem 5**

Hape re ka sebedisa theibole.

10 × 8 = 80	
20 × 8 = 160	
30 × 8 = 240	
40 × 8 = 320	
50 × 8 = 400	
60 × 8 = 480	
70 × 8 = 560	

1. Sebedisa o mong wa mehlala e mmedi ho khalkhuleitha tse latelang.

a) 650 ÷ 9

b) 400 ÷ 9

c) 301 ÷ 5

Tekena:		Mohla:	

5.8. Ho arola dinomoro o sebedisa mokgwa wa ho qhaqha

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Ho arola dinomoro, o ka boela wa qhqha nomoro hore e arolehe ka dimalthipole tsa divaesa (nomoro o arolang ka yona). Ebe o arolaa malthepole kanngwe ka divaesa

Nahana ka mehlala e latelang

49 ÷ 3

(30 +18 + 1) ÷ 3
30 ÷ 3 = 10
18 ÷ 3 = 6
48 ÷ 3 = 16
∴ 49 ÷ 3 = 16 rem 1

(30 +15 + 3 + 1) ÷ 3
30 ÷ 3 = 10
15 ÷ 3 = 5
3 ÷ 3 = 1
48 ÷ 3 = 16
∴ 49 ÷ 3 = 16 rem 1

432 ÷ 6

(300 +120 + 12) ÷ 6
300 ÷ 6= 50
120 ÷ 6 = 20
12 ÷ 6 = 2
432 ÷ 6 = 72
∴ 432 ÷ 6 = 72

1. Khalkhuleita:

a)	358 ÷ 3	
b)	732 ÷ 8	

Tekena:		Mohla:	

5.9. Ho sebedisa long divijene.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Sheba mehlala e latelang:

49 ÷ 3

$$\begin{array}{r|l} 3 & 4\ 9 \\ -\ 3\ 0 & (3 \times 10) \\ \hline 1\ 9 & \\ -\ 1\ 5 & (3 \times 5) \\ \hline 4 & \\ -\ 3 & (3 \times 1) \\ \hline 1 & \end{array}$$

Clue board

3 × 1 = 3
3 × 2 = 6
3 × 10 = 30
3 × 5 = 15

∴ 49 ÷ 3 = 16 rem 1

432 ÷ 6

$$\begin{array}{r|l} 6 & 4\ 3\ 2 \\ -\ 3\ 0\ 0 & (6 \times 50) \\ \hline 1\ 3\ 2 & \\ -\ 6\ 0 & (6 \times 10) \\ \hline 7\ 2 & \\ -\ 6\ 0 & (6 \times 10) \\ \hline 1\ 2 & \\ -\ 1\ 2 & (6 \times 2) \\ \hline 0 & \end{array}$$

Clue board

6 × 1 = 6
6 × 2 = 12
6 × 10 = 60
6 × 5 = 30
6 × 100 = 600
6 × 50 = 300
6 × 25 = 150

∴ 432 ÷ 6 = 72

1. Sebedisa long divijene ho khalkhuleitha tse latelang.

a) 91 ÷ 7

91 ÷ 7

Clue board

_____
_____
_____
_____
_____

∴ 91 ÷ 7 =

91 ÷ 7

Clue board

_____
_____
_____
_____
_____

∴ 91 ÷ 7 =

b) 74 ÷ 6

74 ÷ 6

Clue board

_____

_____

_____

_____

_____

∴ 74 ÷ 6 =

74 ÷ 6

Clue board

_____

_____

_____

_____

_____

∴ 74 ÷ 6 =

c) 159 ÷ 4

159 ÷ 8

Clue board

_____

_____

_____

_____

_____

∴ 159 ÷ 4 =

159 ÷ 8

Clue board

_____

_____

_____

_____

_____

∴ 159 ÷ 4 =

d) 237 ÷ 5

237 ÷ 5

Clue board

_____

_____

_____

_____

_____

∴ 237÷ 5 =

237 ÷ 5

Clue board

_____

_____

_____

_____

_____

∴ 237÷ 5 =

Tekena:		**Mohla:**	

5.10. Ho rarolla mathata

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Ho rarolla dipalo tsena tsa mantswe o sebedisa mokgwa le ha e le ofe.

1. Moketeng, diseteripi tsa tswekere tse 15 di arolelwa bana ba 4. Arola ka ho lekana! Sebedisa metako ho o thusa.

2. Dineo le Lebo ba batla ho arolelana dikotwana tse 13 tsa tjhokolete ka ho lekana. E mong le e mong o fumana dikotwana tse kae?

3. Diapole tse 68 di tlameha ho arolelanwa ka ho lekana mahareng a batho ba 7. E mong le e mong o tla fumana diapole tse kae mme ho tla sala tse kae?

Tekena:		Mohla:	

5.11. Ho rarolla mathata, di ya tswelliswa

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Mahe a 137 a tlameha ho kenngwa ka hara mabokose a ka nkang mahe a 6 lebokose ka leng.

a) Ho hlokahala mabokose a makae?

b) Ke mabokose a makae a ka tlatswang?

c) Ke mahe a makae a tla be a le ka lebokoseng le sa tlalang?

Tekena:		Mohla:	

5.12. Ho rarolla mathata maemong a tjhelete.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Rarolla mathata a latelang:

1. Lebenkele la dibuka le rekisitse dibuka tse 8 ka R500. Buka e le nngwe ya mofuta o tshwanang ke bokae?

2. Lebenkele la dieta le rekisa para e le nngwe ya dieta ka R82. Mme le ausi wa ka ba rekile dipara tse 9 kaofela. Ba lefile bokae?

3. Titjhere wa ka o rekile dibuka tsa dipale tse 7 ka R69 ka nngwe. O lefile bokae bakeng sa dibuka tsohle tsa dipale?

Tekena:		Mohla:	

5.13. Ho rarolla bothata maemong a ditjhelete ho ya tswelliswa.

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Rarolla mathata a latelang:

1. Mme o ile a reka disebediswa tsa khomphiyuta ka R98 e le nngwe. O rekile disebediswa tse 5. O lefile bokae kaofela?

2. Ke sebedisitse R600 dipapading tse 6 tsa khomphiyuta tse tshwanang. Ke lefile bokae bakeng sa papadi ka nngwe?

3. Mme o ile a ya thupelong ya matsatsi a 7. Dijo tsa motsheare di bitsa R75 ka letsatsi. O ile a lefa bokae bakeng sa dijo tsa hae tsa motshehare kaofela?

Tekena:		Mohla:	

5.14. Ho rarolla mathata maemong a kenyelletsang reshiyo le reiti

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Rarolla mathata bo latelang:

1. Reabetswe o rekile terata ya dimitara tse 240 bakeng sa polasi ya hae. Sena se feta se rekuweng ke Pule ka makgetlo a 15. Pule o rekile terata e kae?

2. Ho nka Teboho hora ho matha 6 km. Ho tla mo nka nako e kae ho matha 3 km, ha a matha ka lebelo le tshwanang?

3. Lebenkele la Mosa le bitsa R90 bakeng sa lebokose la diavokhado tse 15. Karatjhe e bitsa R63 bakeng sa mokotla wa diavokhado tse 9. Theko e ntle ke efe?

4. Motjhini wa kgatiso o sebetsa ka pheisi e tshwanang ka dinako tsohle. Ho nka dihora tse 8 ho hatisa dibukana tse 720 motjhineng. Ho hatiswa dibukana tse kae ka hora?

Tekena:		Mohla:	

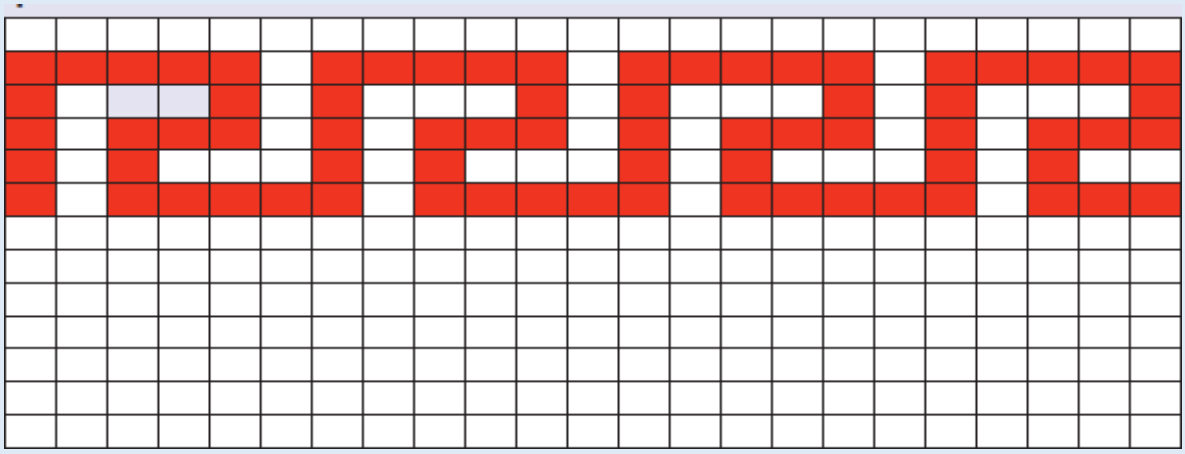
YUNITI YA 6: DIJIOMETRIKI PHETHENE

6.1. Ho ithabisa ka dipaterone

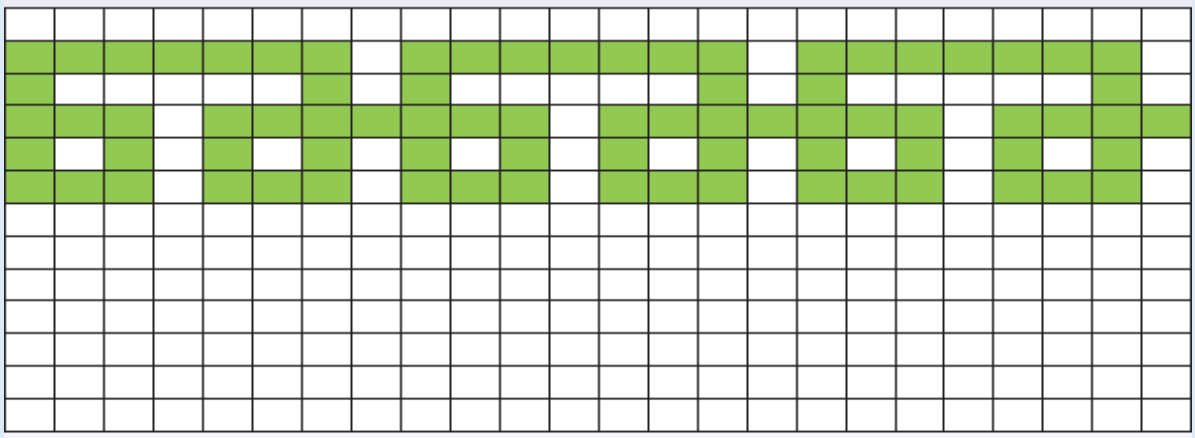
Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Kopitsa paterone ka nngwe e kiriting e ka tlase.

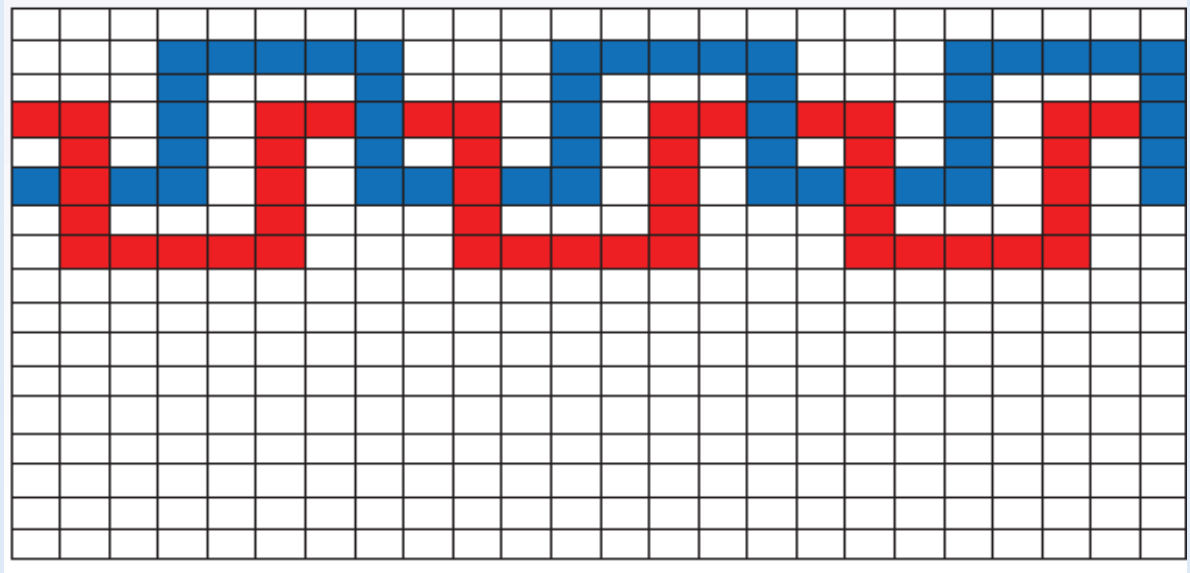
a)



b)



c)

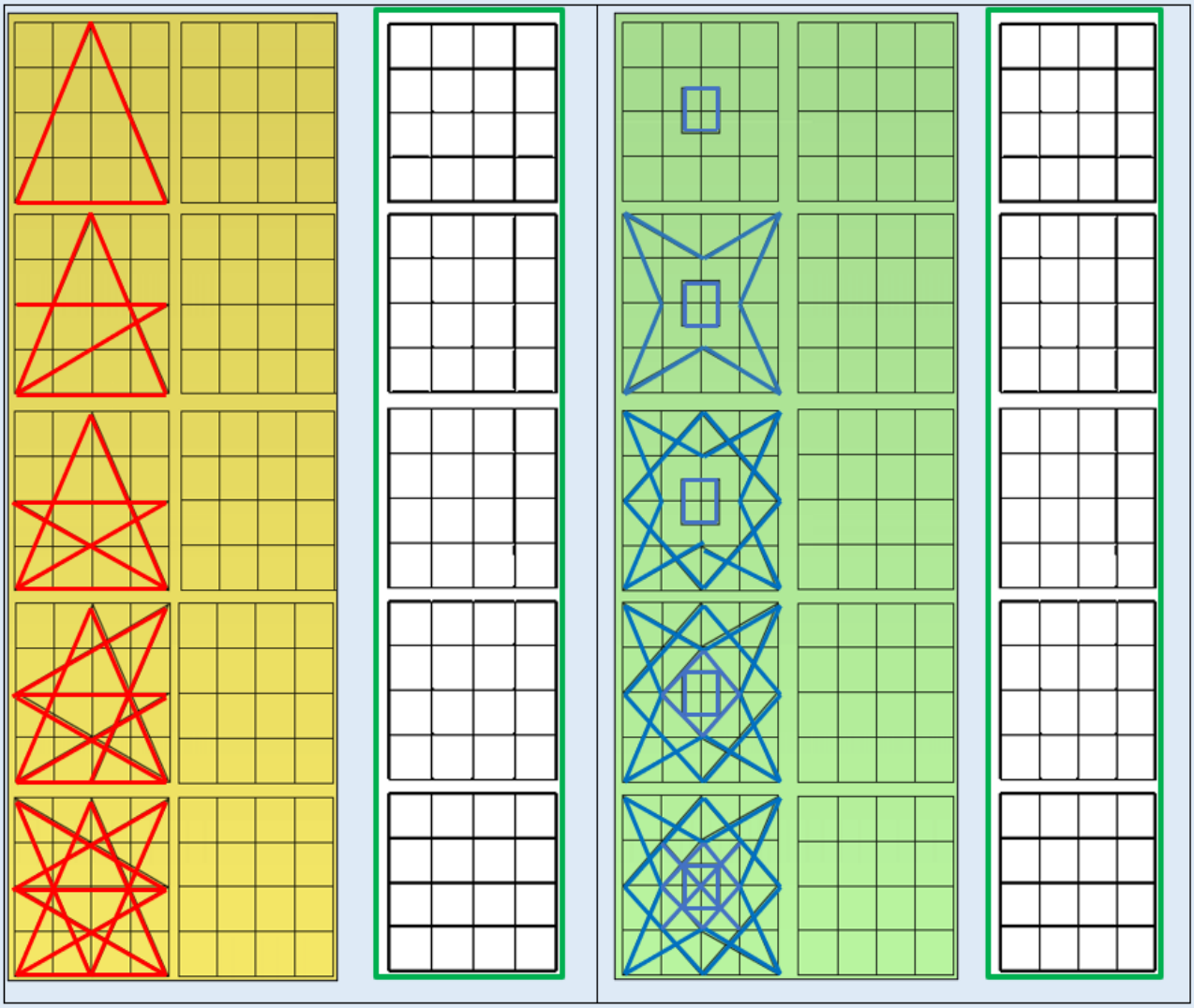


Tekena:		Mohla:	

6.2. Ho ithabisa ka dipaterone, ho ya tswelliswa

Date		Classwork		Homework	

1. Taka moralo ka mong hore o nyalane hantle le o ka ho le letshehadi.



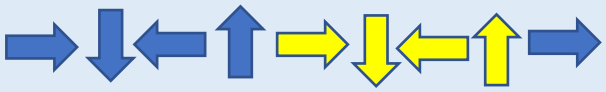
Tekena:		Mohla:	

6.3. Ho bona dijiometriki phethene

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Ho bona dipaterone hangata mmetseng, o ya o ba betere mmetseng! O motle hakakang ho boneng dipaterone? Paterone e ka hola kapa ya iphethapheta.

1. Ithute mme o qetelle paterone.

a)		____ ____
b)	A B C A ____ ____ A B C A	____ ____
c)		____ ____
d)		____ ____ ____
e)		____ ____

f) Ke mofuta ofe wa dipaterone o bontshitsweng ho (a) ho ya ho (e)? [e pheta-phetwang kapa e holang]

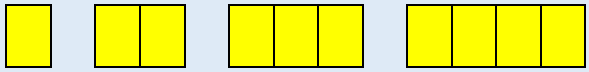
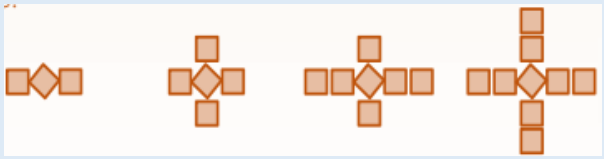
2. Iketsetse paterone ya hao e phethaphetwang o sebedisa disheyiphi.

Tekena:		Mohla:	

6.4. Ho bona dijiometriki phethene, di ya tswelliswa

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Ithute le ho taka setshwantsho pateroneng tse latelang.

a)				
b)				
c)				
d)				
e)				

f) Ke mofuta ofe wa dipaterone o bontshitsweng ho (a) ho ya ho (e)? [e pheta-phetwang kapa e holang]

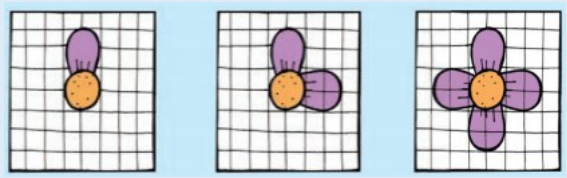
2. Iketsetse paterone ya hao e holang o sebedisa disheyiphi.

Tekena:		Mohla:	

6.5. Ho fuputsa le ho atolosa dijiometriki phethene

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Ho etsahalang ka mahlaku? Qetella:

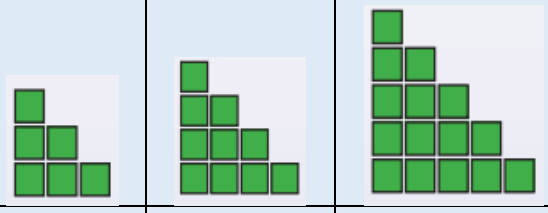


2. Ithute dipaterone mme o di atolose.

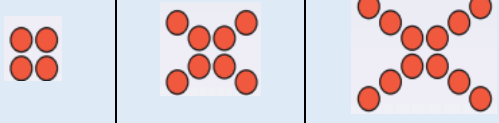
a).

b).

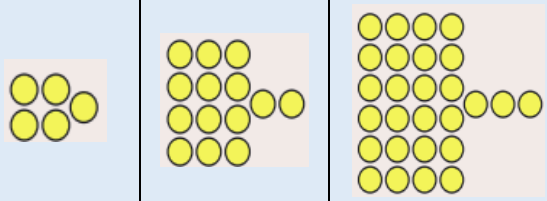
c).



d).



e).

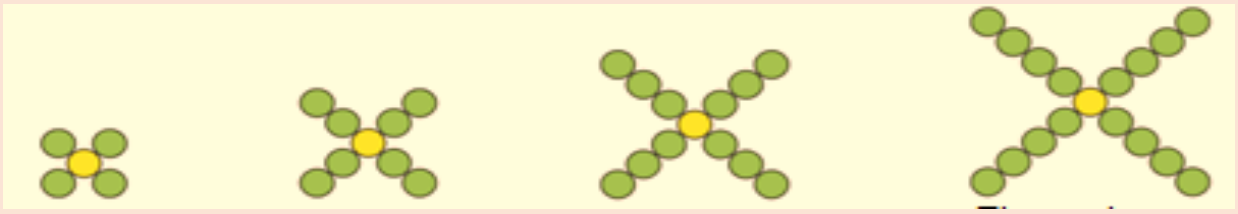


Tekena:		Mohla:	

6.6. Ho fuputsa le ho atolosa dijiometriki phethene, ho ya tswelliswa

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Dijiometriki phethene ke tlhophiso ya diobjekte, disheyiphi, metako, didaegramo ka mokgwa o tshwanang ntle le ho fetola sebopeho. Leha ho le jwalo, sebopeho se ka hodiswa kapa sa nyenyefatswa.



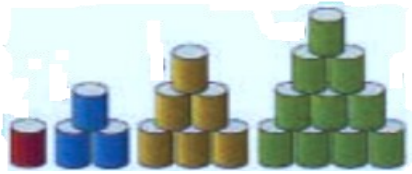
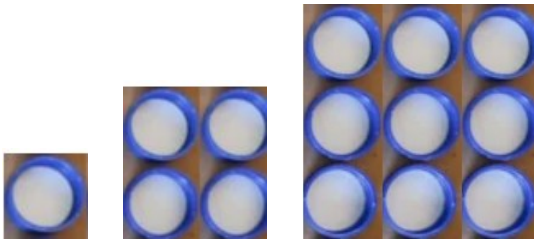
Setshwantsho 1	Setshwantsho 2	Setshwantsho 3	Setshwantsho 4

O ka hlalosa paterone e ka hodimo ka ho re:

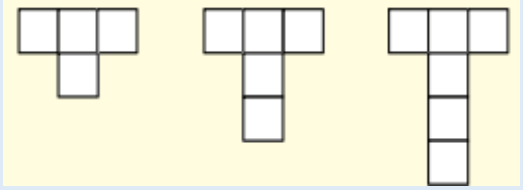
- Matheba a mabedi a eketswa daegonale ka mahlakoreng a mabedi a sekele e tshehla bakeng sa mohato ka mong.
- Eketsa letheba le le leng qetellong ya mohato ka mong hore le etse sheyiphi ya X

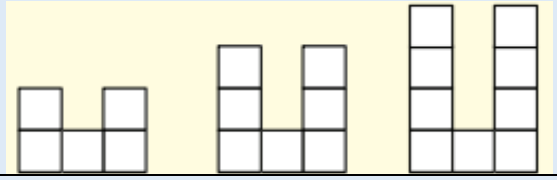
Tlhaloso ya mofuta ona e bontsha **kamano** pakeng tsa mehato e latellanang ya paterone, ke hore, ho etsahalang mohatong o fetileng ho fumana mohato o latelang.

1. Hlalosa, ka mantswe a hao, hore na paterone ka nngwe e hola jwang.

Aha tse latelang o sebedisa makotikoti a senomaphodi.	Aha tse latelang o sebedisa dikwaelo tsa dibotlolo.
	

2. Atolosa le ho hlalosa hore na paterone ka nngwe e hola jwang.

a)			
Tlhaloso:			
Tlhaloso:			

b)			
Tlhaloso:			
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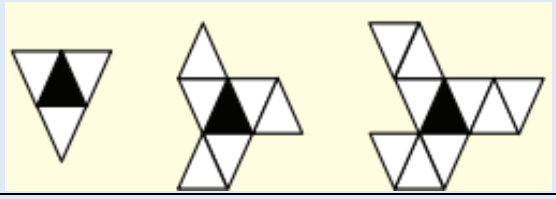
c)			
Tlhaloso:			
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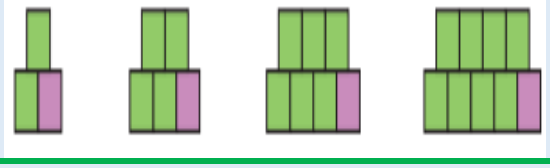
d)			
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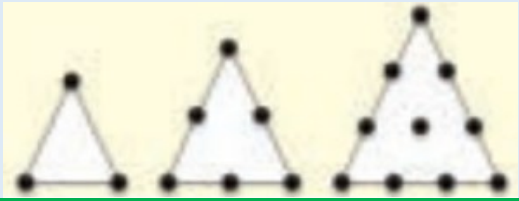
Tlhaloso:			
e)			
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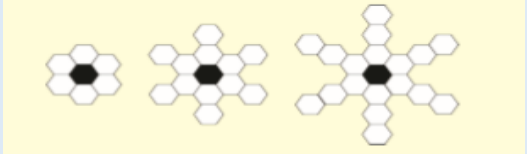
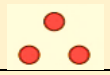
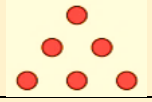
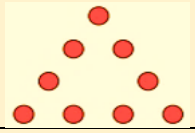
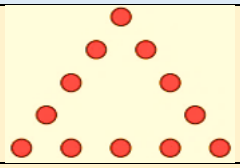
f)			
Tlhaloso:			
Tlhaloso:			

Tekena:		**Mohla:**	

6.7. Ho fuputsa le ho atolosa dijiometriki phethene

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

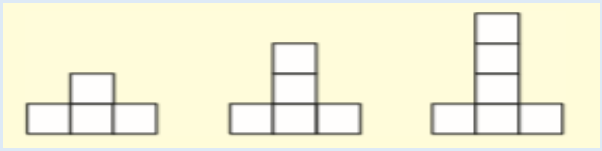
			
Setshwantsho 1	Setshwantsho 2	Setshwantsho 3	Setshwantsho 4

Paterone e ka hodimo e ka hlaloswa ka mekgwa e fapaneng:

- Tlhophiso ya disekele e etsa sheyiphi ya traengele ka disekele tse pedi ka lehlakoreng ka leng, ebe di eketseha ka sekele e le nngwe ka lehlakoreng ka leng.
- Tlhophiso ya disekele ho etsa sheyiphi ya traengele e fapaneng ka matheba a mararo ho tloha ho le leng le haufi le lona.
- Tlhophiso ya disekele e etsa sheyiphi ya traengele, mme traengele e latelang e etswa ka ho kenya letheba le le leng lehlakoreng ka leng.

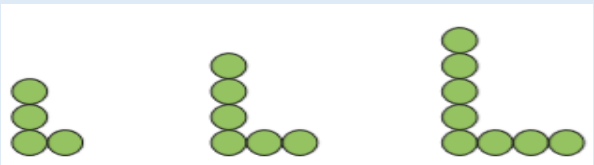
Tlhaloso ya mofuta ona e bontsha kamoo paterone e **entsweng kateng.**

1. Atolosa le ho hlalosa hore paterone e entswe jwang.

a) 

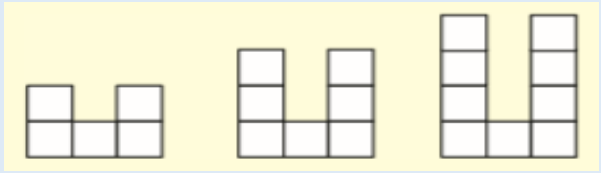
Tlhaloso:

Tlhaloso:

b) 

Tlhaloso:

Tlhaloso:

c) 

Tlhaloso:

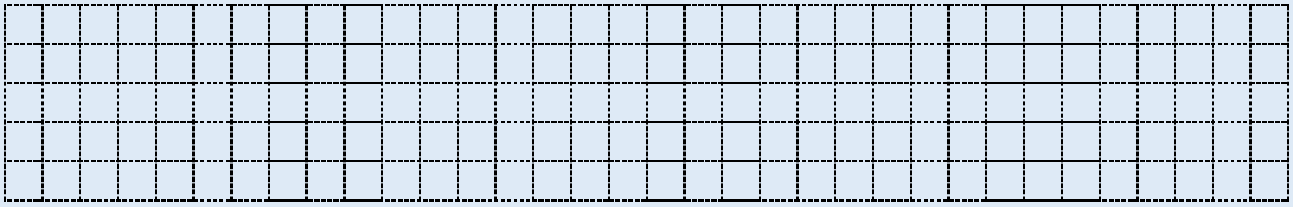
Tlhaloso:

d) 

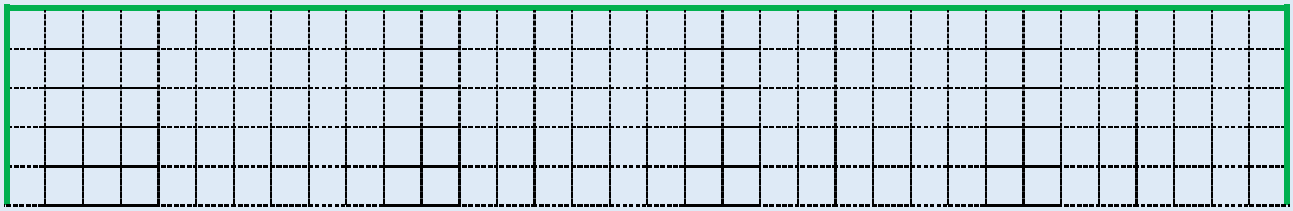
Tlhaloso:

Tlhaloso:

2. Iketsetse paterone ya hao mme o hlalose hore e entswe jwang.



Tlhaloso:



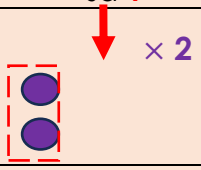
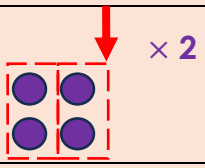
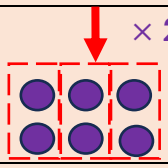
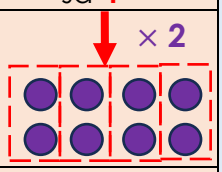
Tlhaloso:

Tekena:		**Mohla:**	

6.8. Molaokakaretso

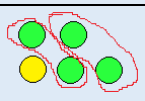
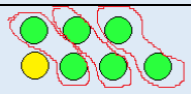
Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

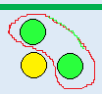
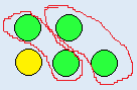
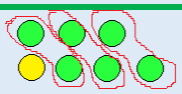
Tlhaloso ya paterone e ka boela ya bontsha kamano pakeng tsa nomoro ya mohato kapa nomoro ya setshwantsho le daegramo ka boyona. Mofuta ona wa dikamano o bitswa **molaokakaretso** bakeng sa paterone. **Molaokakaretso** o ka o thusa ho fumana ha bonolo theme ya paterone kapa palo ya disheyiphi mohatong ofe kapa ofe wa paterone.

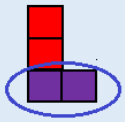
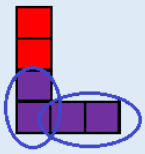
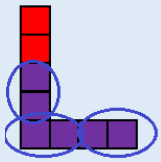
Mohato	Setshwantsho sa **1**	Setshwantsho sa **2**	Setshwantsho sa **3**	Setshwantsho sa **4**
Paterone				
Mantswe	Sehlopha se le 1 sa 2	Dihlopha tse 2 tsa 2	Dihlopha tse 3 tsa 2	Dihlopha tse 4 tsa 2
Polelopalo	1 × 2	2 × 2	3 × 2	4 × 2
Molaokakaretso	□ × 2	□ × 2	□ × 2	□ × 2

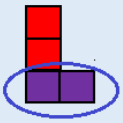
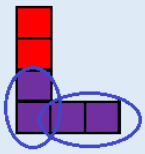
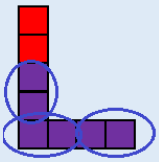
Ho fumana molaokakaretso wa paterone, sheba hore na ke eng e fetohang le e tshwanang.
Ka hona sena se bolela hore mohatong wa 22, ho tla ba le disekele tse 22 × 2 = disekele tse 44

1. Ho e nngwe le e nngwe, tlatsa theibole ka:
   - Ho taka mohato wa bone
   - Ho hlwaya hore ke eng se tshwanang ho e nngwe le e nngwe e totobaditsweng
   - Ho hlwaya se fetohang ka ho se bontsha jwalo ka dihlopha
   - Ho ngola dipolepalo
   - Molaokakaretso ka ho tlosa se fetohang ka lebokose la tulo kapa lentswe "nomoro ya mohato".

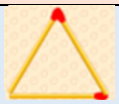
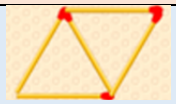
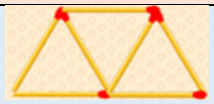
a) Mohato	1	2	3	4
Paterone				
Ke sefe tse tshwanang?	1			
Ke sefe se fetohang?	Sehlopha se le 1 sa 2			
Kopanya mela e mmedi	1 + 1 sehlopha sa 2			
Polelopalo	1 +1 × 2			
Molaokakaretso	1 + □ × 2			

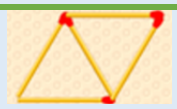
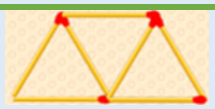
Paterone				
Ke sefe se tshwanang?	1			
Ke sefe se fetohang?	Sehlopha se le 1 sa 2			
Kopanya mela e mmedi	1 + 1 sehlopha sa 2			
Polelopalo	1 +1 × 2			
Molaokakaretso	1 + ☐ × 2			

b) Mohato	1	2	3	4
Paterone				
Ke sefe se tshwanang?	2			
Ke sefe se fetohang?	Sehlopha se le 1 sa 2			
Kopanya mela e mmedi	2+ 1 sehlopha sa 2			
Polelopalo	2 +1 × 2			
Molaokakaretso	2 + ☐ × 2			

Paterone				
Ke sefe se tshwanang?	2			
Ke sefe se fetohang?	Sehlopha se le 1 sa 2			
Kopanya mela e mmedi	2+ 1 sehlopha sa 2			
Polelopalo	2 +1 × 2			
Molaokakaretso	2 + ☐ × 2			

2. Latela mehato ho 1 ho ngola molaokakaretso bakeng sa paterone.

Mohato	**1**	**2**	**3**	**4**
Ke sefe se tshwanang?				
Ke sefe se fetohang?				
Kopanya mela e mmedi				
Polelopalo				
Molaokakaretso				

Ke sefe se tshwanang?				
Ke sefe se fetohang?				
Kopanya mela e mmedi				
Polelopalo				
Molaokakaretso				

3. Fumana nomoro ya disheyiphi mohatong wa 35 bakeng sa (a), (b) le (c

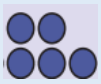
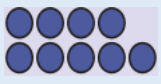
Palo.	**Molao**	**Nomoro ya disheyiphi mohatong wa 35.**	
a)			
b)			
c)			

Tekena:		**Mohla:**	

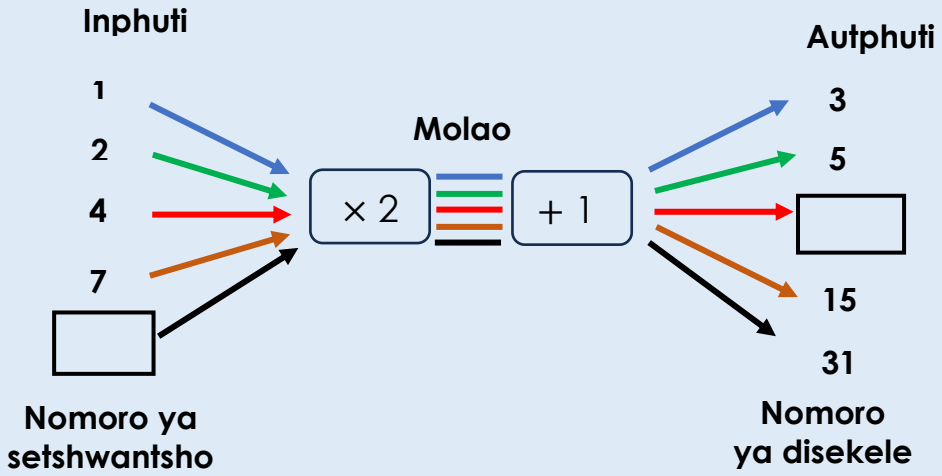
6.9. Inphuti, autphuti le melao ho diflodaegramo

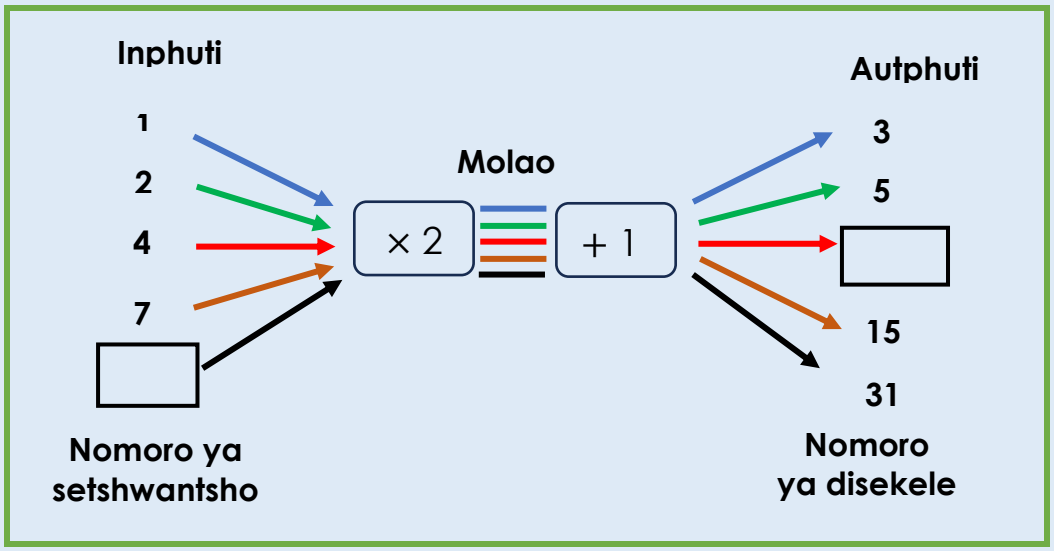
Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Sheba paterone e entsweng ka disekele mme o qetelle flodaegramo.

Setshwantsho 1	Setshwantsho 2	Setshwantsho 3	Setshwantsho 4		Setshwantsho 31
					

a). Qetella flodaegramo ha o fuwe molao



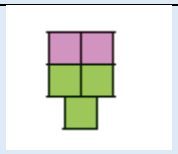
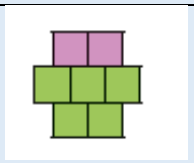
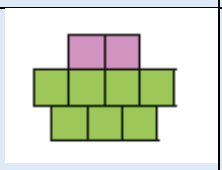
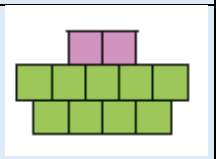


Tekena:		Mohla:	

6.10. Inphuti, autphuti le melao ho diflodaegramo, di ya tswelliswa

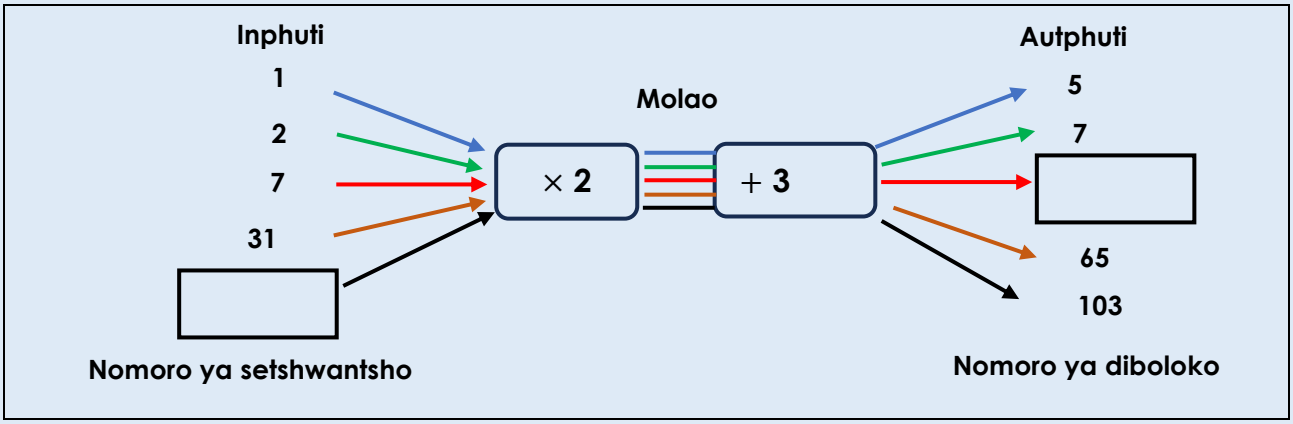
Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

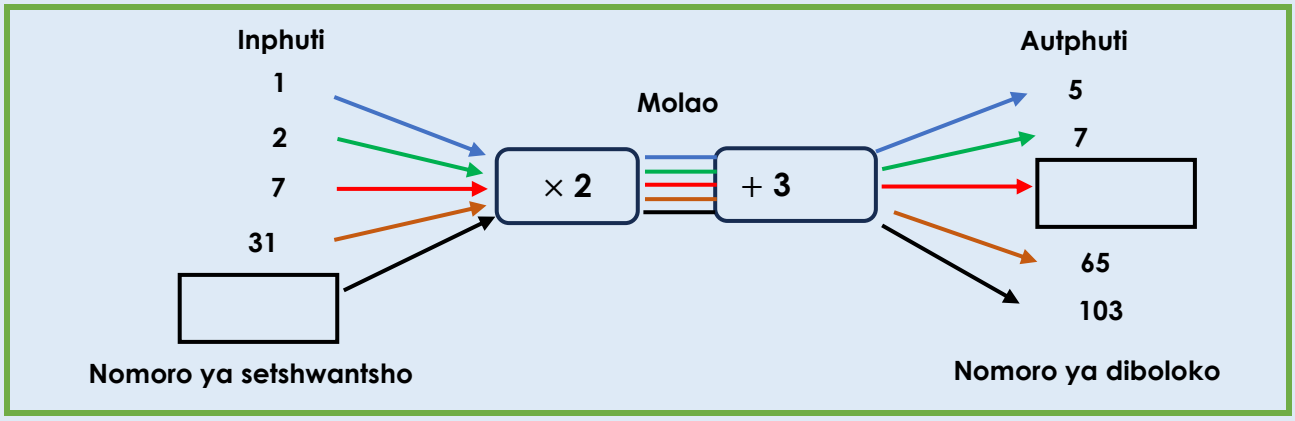
Sheba paterone e entsweng ka diboloko.

Setshwantsho sa 1	Setshwantsho sa 2	Setshwantsho sa 3	Setshwantsho sa 4		Setshwantsho sa 31
					

1. Hlalosa hore paterone e bopehile jwang.

2. Qetella flodaegramo.



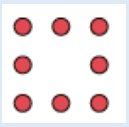
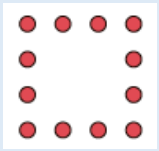
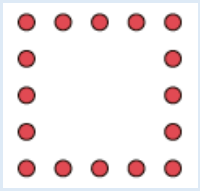


Tekena:		Mohla:	

6.11. Inphuti, autphuti le melao ho diflodaegramo, di ya tswelliswa

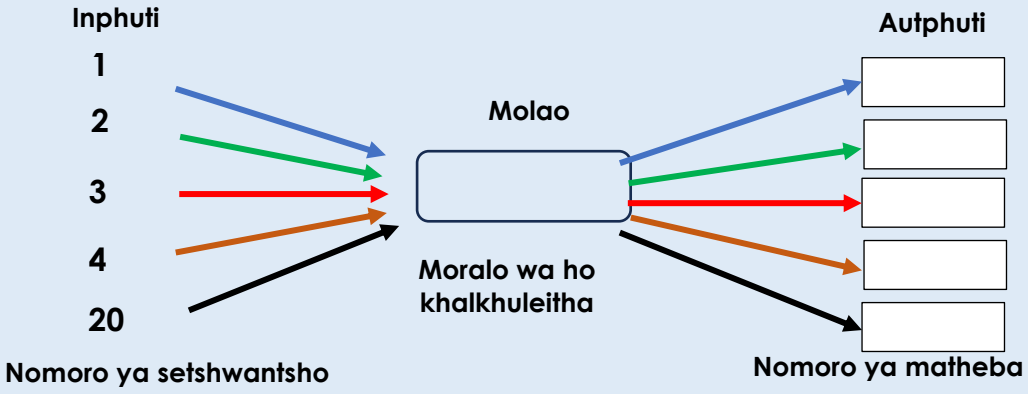
Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

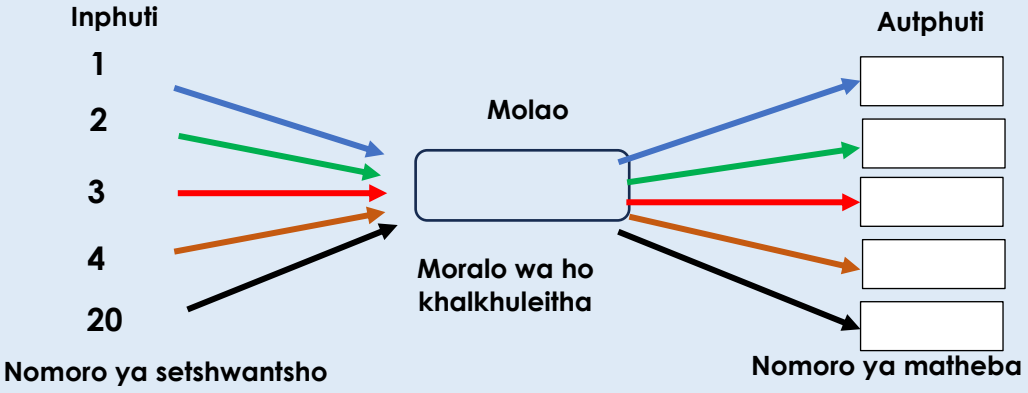
Sheba paterone e entsweng

Setshwantsho 1	Setshwantsho 2	Setshwantsho 3	Setshwantsho 4		Setshwantsho 20
					

1. Hlalosa hore paterone e entswe jwang.

2. Qetella flodaegramo.





Tekena:		Mohla:	

6.12. Inphuti, autphuti le melao ho diflodaegramo, di ya tswelliswa

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Ditraengele di hlophisitswe ho etsa paterone

Setshwantsho 1	Setshwantsho 2	Setshwantsho 3	Setshwantsho 4
			

1. Hlalosa hore paterone ya ditraengele tse tala e hola jwang?.

2. Hlalosa hore paterone ya ditraengele tse pinki e entswe jwang?

3. Fumana molaokakaretso wa paterone e entsweng ke ditraengele tse tala.

4. Ke ditraengele tse kae tse tala tse tla ba teng mohatong wa 50?

Tekena:		Mohla:	

6.13. Diekhwivalente fomo

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Dipaterone di ka bontshwa le ho hlaloswa ka mefuta e fapaneng jwalo ka ha ho bontshitswe ka tlase.

Ho bontsha ka mokgwa wa daegramo

1. Ithute le ho atolosa dipaterone tse latelang.

Paterone e ka hlaloswa ka ho sebedisa mantswe a hao.

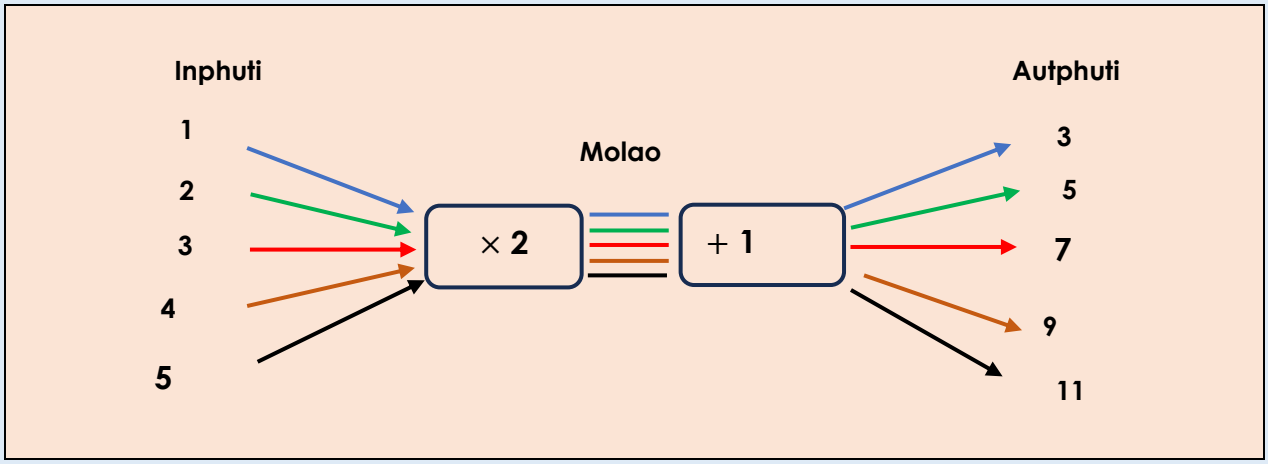
Tlhaloso ka mantswe

- Ho fumana daegramo e latelang, eketsa mola ka sekwere se se kgubedu le dikwere tse pedi tse tshehla ka tlase ho mohato ka mong.
- Palo ya mela enang le sekwere se sekgubedu le dikwere tse pedi tse tshehla e tshwana le nomoro ya daegramo.

Mokgwa wa theibole

Nomoro ya daegramo	1	2	3	4	5	6	
Dikwere tse kgubedu	1	2	3	4	5		
Dikwere tse tshehla	3	5	7	9	11		
Palo ya dikwere kaofela	4	7	10	13	16		

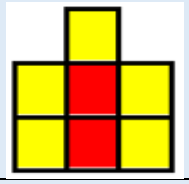
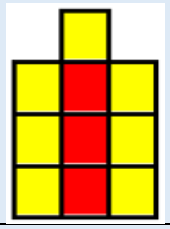
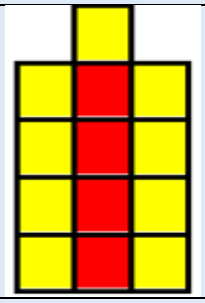
Flodaegramo.



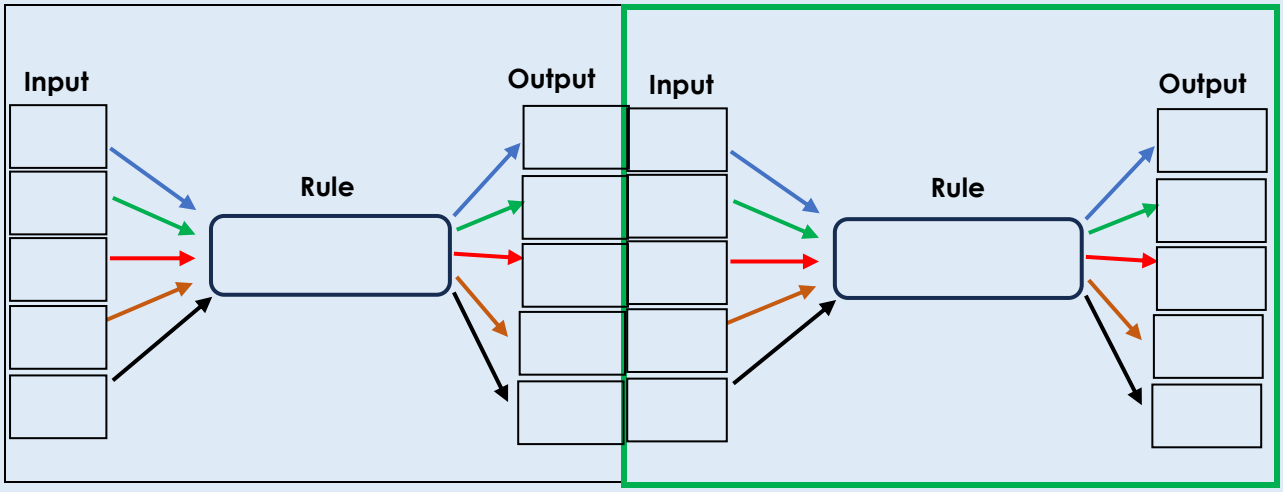
Polelopalo

Dipolelopalo tse bulehileng	Dipolelopalo tse kwetsweng
2 × ___ + 1= 7	2 × 3 + 1= 7

2. Ithute paterone e entsweng ka dikwere tse kgubedu

			
Daegramo 1	**Daegramo 2**	**Daegramo 3**	**Daegramo 4**

a) Qetella flodaegramo ya dikwere tse kgubedu.



b) Fumana molaokakaretso wa dikwere tse kgubedu.

c) Ngola polelopalo ya dikwere tse kgubedu.

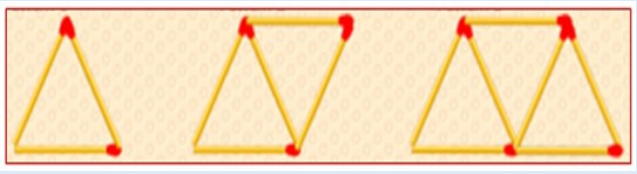
Dipolelopalo tse bulehileng	Dipolelopalo tse kwetsweng

Tekena:		**Mohla:**	

6.14. Diekhwivalente fomo

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Ithute paterone o e fuweng mme o arabe dipotso tse latelang.



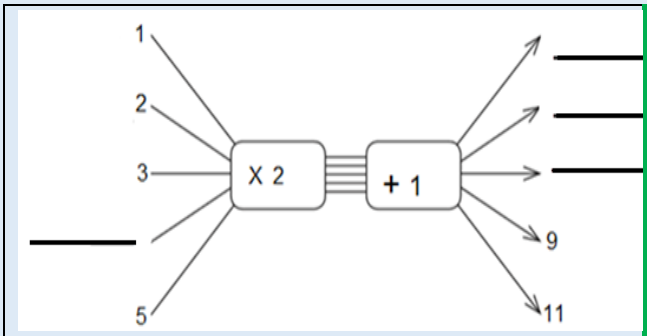
Daegramo 1 Daegramo 2 Daegramo 3 Daegramo 4

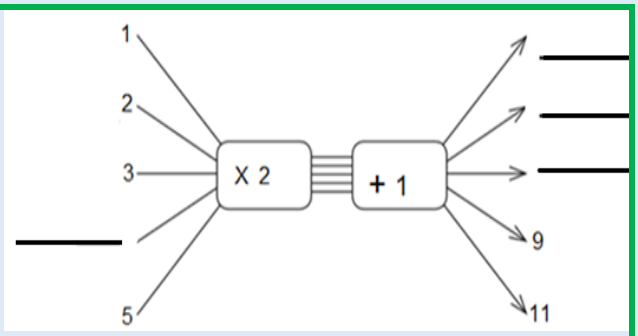
a) Taka daegramo ya 4.

b) Hlalosa hore na o ka fumana daegramo kapa mohato o latelang jwang.

c) Ngola molao ka mantswe a hao o sebedisa dithutswana tsa mollo le/kapa ditraengele.

d) Tlatsa flodaegramo o sebedisa dintlha tse mabapi le paterone o e fuweng.





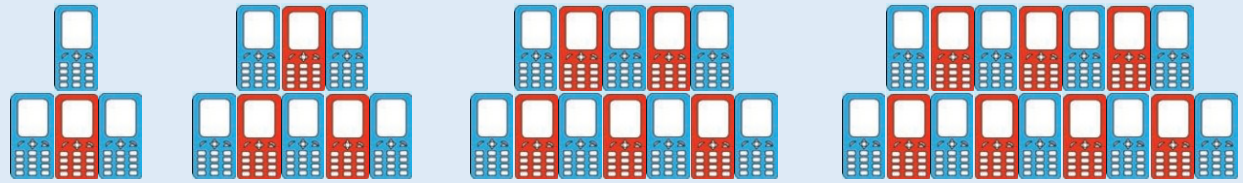
e) Ngola dipolelopalo le ha e le dife tse pedi (e butsweng kapa e kwetsweng)

Tekena:		Mohla:	

6.15. Diekhwivalente fomo tse ding hape

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Lerato o etsa paterone e holang ka diselfounu tse bolou le tse kgubedu.



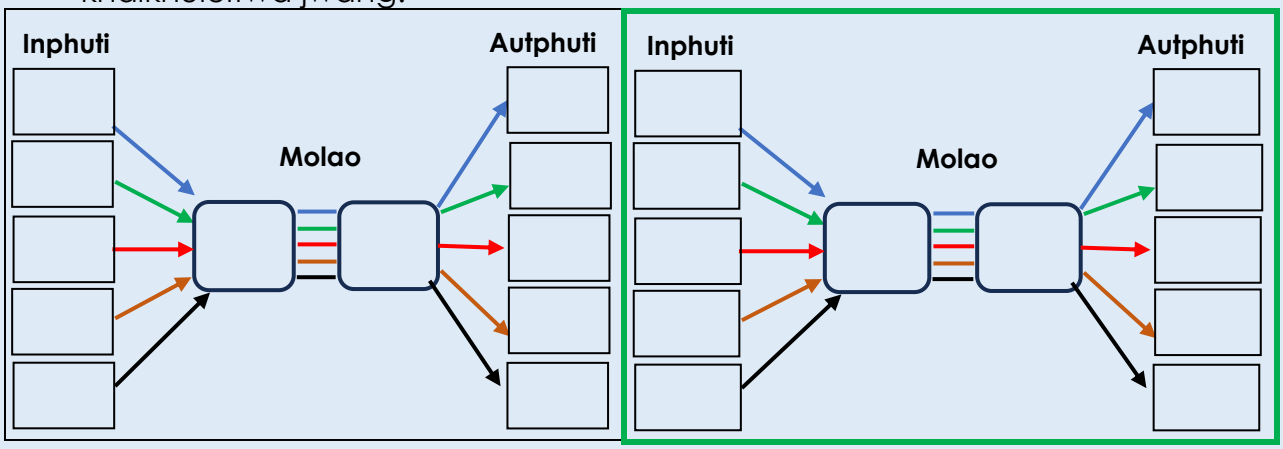
Tlhophiso 1 Tlhophiso 2 Tlhophiso 3 Tlhophiso 4

a) Tlatsa theibole.

Nomoro ya tlhophiso	1	2	3	4	5		20							
Palo ya diselfounu tse kgubedu	1	3												
Palo ya diselfounu tse bolou	3	5												
Palo ya diselfounu kaofela	4	8												

b) Hlalosa hore dipaterone tsa diselfounu tse kgubedu di entswe jwang.

c) Etsa flodaegramo ho bontsha hore na palo ya difounu tse kgubedu e ka khalkhuleitwa jwang.



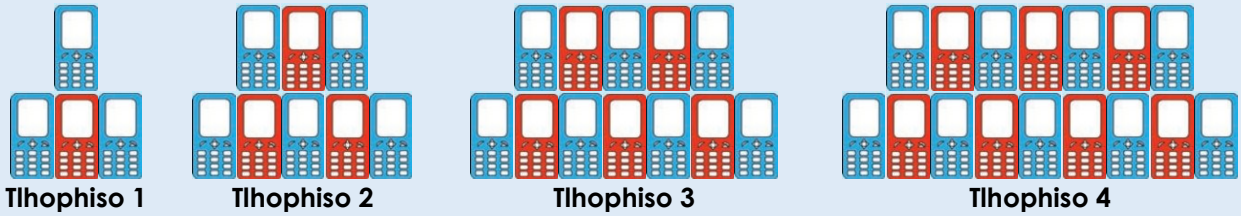
d) Ngola polelopalo ho bontsha hore o ka khalkhuleitha palo ya diselfounu tse kgubedu jwang.

Tekena:		Mohla:	

6.16. Diekhwivalente fomo tse ding hape

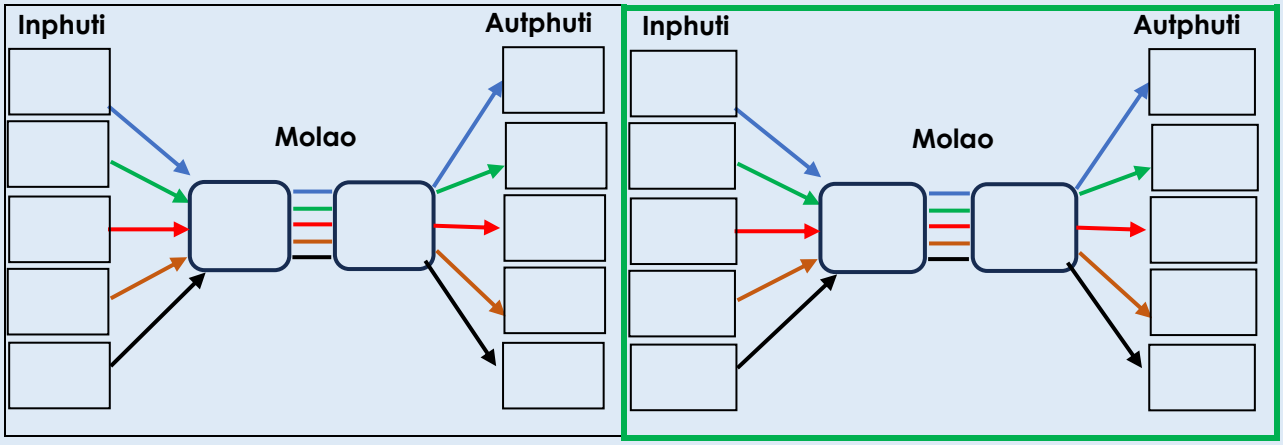
Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Sheba daegramo ho Nomoro ya 1 moo leqhepheng la 61.



a) Hlalosa hore dipaterone tsa diselfounu tse bolou di entswe jwang.

b) Etsa flodaegramo ho bontsha hore palo ya difounu tse bolou e ka khalkhuleitwa jwang.



c) Ngola polelopalo ho bontsha hore o ka khalkhuleitha palo ya diselfounu tse kgubedu jwang.

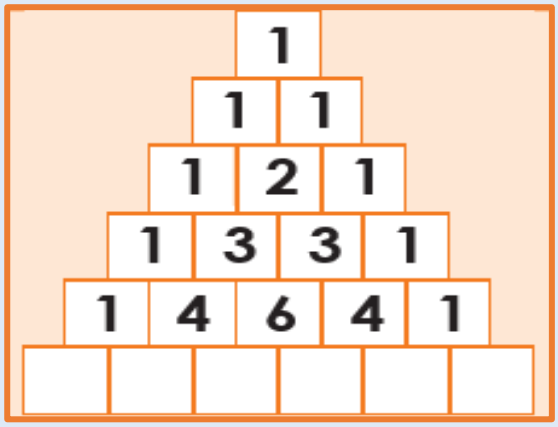
Tekena:		Mohla:	

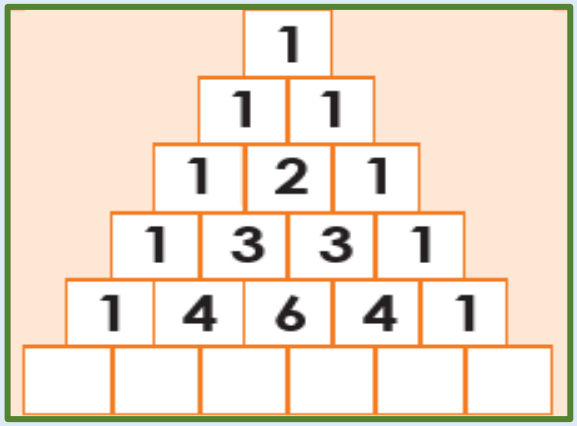
YUNITI 7: DINYUMERIKI PHETHENE

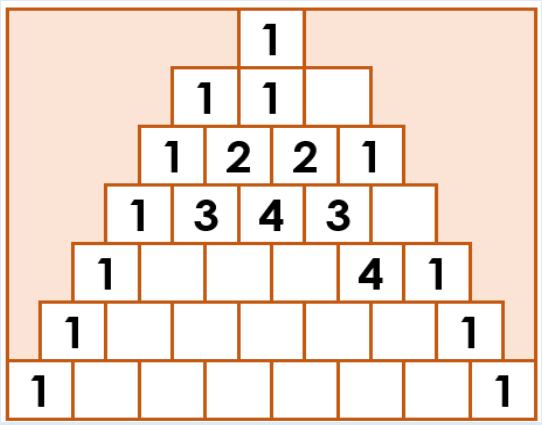
7.1. Ho ithabisa ka dinyumeriki phethene

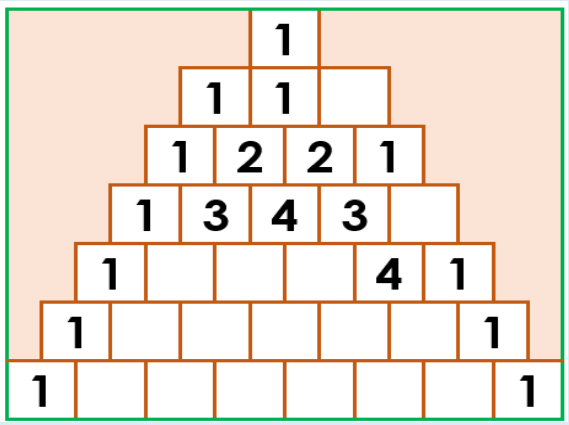
Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

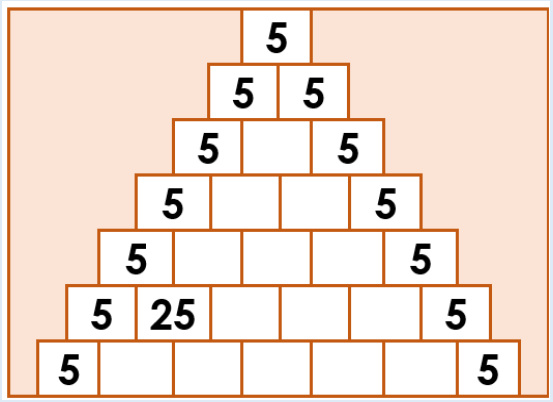
Dinomoro tse siilweng e tla ba dife?

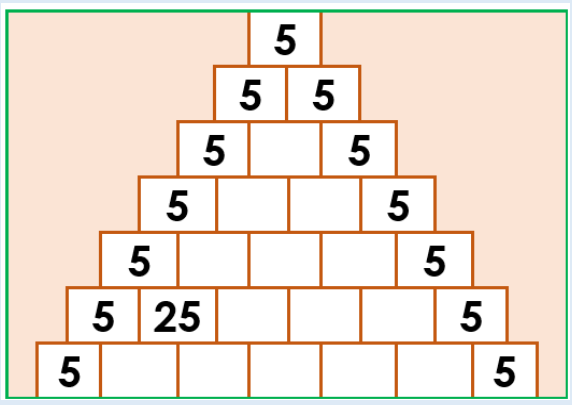












Tekena:		Mohla:	

7.2. Ho bona dinyumeriki phethene

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Bua ka dipaterone theiboleng e latelang.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	101

2. O ka fumana karabo ka potlako hakae?

KHOLOMO					KHOLOMO				
A	B	C	D	E	A	B	C	D	E
2	4	6	11	15	2	4	6	11	15
4	8	12	22	30	4	8	12	22	30
6	12	18	33	45	6	12	18	33	45

1. Bolela hore ke ntho efe e sa dumellaneng le tse ding. Hlalosa hore ke hobaneng ha o re jwalo.

a). 5; 10; 13; 20; 25; 30; 35; 45; 55; 56

b). 10;12; 23; 24; 32; 36; 48; 40; 66; 98

2. Qetella dipaterone tse latelang.

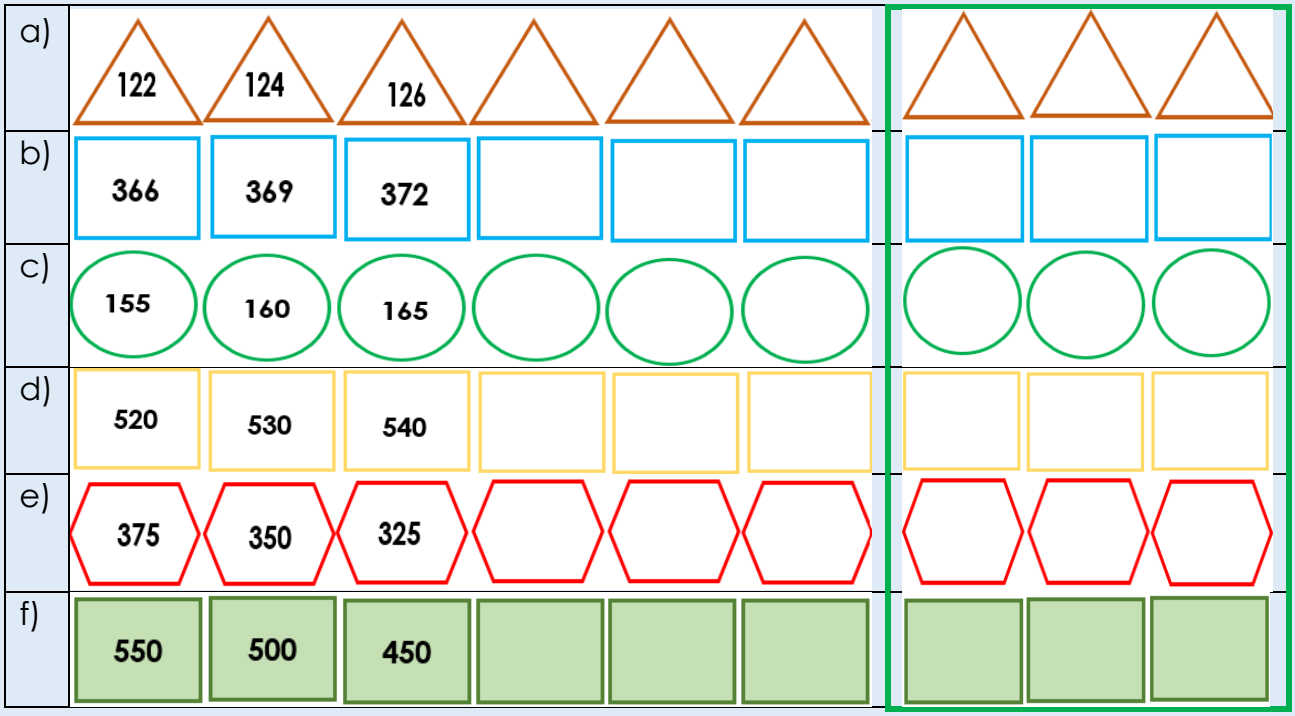
3	+	5	=				30	+	50	=				300	+	500	=		
3	+	6	=				30	+	60	=				300	+	600	=		
7	+	2	=				70	+	20	=				700	+	200	=		

Tekena:		Mohla:	

7.3. Fuputsa le ho atolosa diphethene

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Fuputsa hore paterone ka nngwe e entswe jwang mme o tlatse dinomoro tse siilweng.



2. Tlatsa dinomoro tse siilweng.

a)	100; 102; 104; 106, 108; …						
b)	114; 111; 108; 105; 102; ..						
c)	3; 6; 9; 12; 15; ….						
d)	3; 6; 12; 18; 36; …						
e)	2; 3; 4; 5; 8;…						
f)	1; 3; 6; 10; ….						

Tekena:		Mohla:	

7.4. Ho hlalosa diphethene tsa dinomoro

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Fana ka lebitso le akaretsang la dinomoro tse entseng dipaterone tse bontshitsweng ka sheipi ka nngwe.

	C:
	C:
	C:
	C:
	C:

2. Hlalosa hore na paterone ka enngwe e entswe jwang.

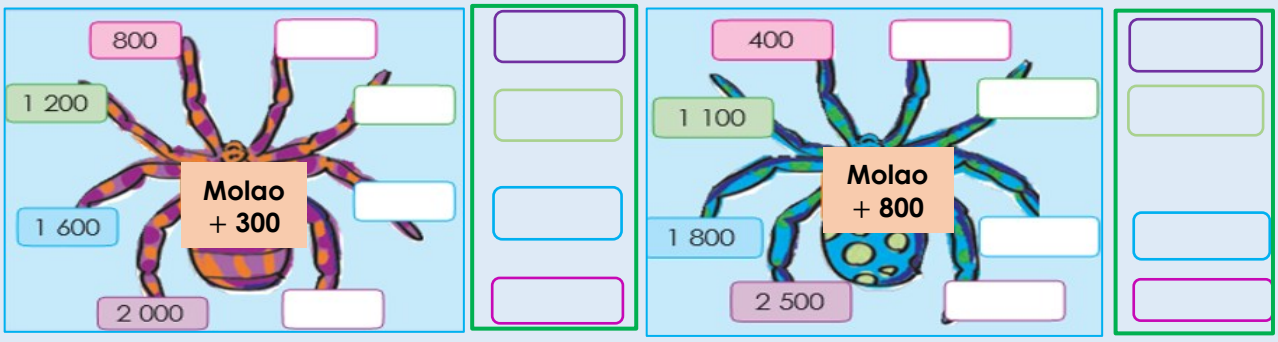
a)	100; 102; 104; 106, 108; …
b)	114; 111; 108; 105; 102; ..
c)	3; 6; 9; 12; 15; ….
d)	3; 6; 12; 18; 36; …
e)	2; 3; 4; 5; 8; …

Tekena:		Mohla:	

7.5. Diphethene tsa dinomoro le melao

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Qetella tse latelang.



Molao ke sete ya ditaelo tse o bolellang mokgwa wa ho fetola kapa ho laola sete ya dinomoro ho etsa paterone

2. Qetella diflodaegramo.

a)

1 200	+ 125	
1 349		
1 498		
1 647		

1 200	+ 125	
1 349		
1 498		
1 647		

b)

1	+1 00	
2		
3		
4		

1		
2		
3		
4		

c)

1 120	+ 1 000	
1 360		
1 600		
1 840		

1 120	+ 1 000	
1 360		
1 600		
1 840		

d)

2 030	– 500	
4 215		
6 400		
8585		

2 030	– 500		
4 215			
6 400			
8585			

Tekena:		Mohla:	

7.6. Diphethene le molao kakaretso

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Mohlala:

Hangata mme wa Thapelo o mo romela ho ya reka dikerese tsa lelapa labo. Kerese e le nngwe ke R4.

1. Qetella theibole ena ho khalkhuleitha ditjeo tsa dinomoro tse fapaneng tsa dikerese.

Dinomoro tsa dikerese	1	2	3	4	5	6		10		20		
Ditjeo ka diranta	4	8	12	16								100

2. Ona ke mokgwa wa Thapelo: (kamano e horizonthale)

Dinomoro tsa dikerese 1 2 3 4 5 6 10 20

Ditjeo (diranta) 4 8 12 16 20

+4 +4 +4 +4 +4

a) Ebe mokgwa wa Thapelo o nepahetse?

b) Halalosa mokgwa wa Thapelo ka mantswe.

c) Sebedisa mokgwa wa Thapelo ho khalkhuleitha ditjeo tsa dikerese tse 5, 17 le 30.

Ditjeo tsa dikerese tse 5	Ditjeo tsa dikerese tse 17	Ditjeo tsa dikerese tse 30

3. Ona ke mokgwa wa Dineo: (kamano e vehikhale e bitswang molaokakaretso)

Nomoro ya dikerese	1	2	3	4	5	6	10	20
	↓ × 4	↓ × 4	↓ × 4	↓ × 4	↓ × 4			
Ditjeo ka diranta	4	8	12	16				

a) Ebe mokgwa wa Dineo o nepahetse?

b) Hlalosa mokgwa wa Dineo ka mantswe.

c) Sebedisa mokgwa wa Dineo ho khalkhuleitha ditjeo tsa dikerese tse 5, 17 le 30.

Ditjeo tsa dikerese tse 5	Ditjeo tsa dikerese tse 17	Ditjeo tsa dikerese tse 30

4. Ke mokgwa ofe o o ratang? Hobaneng?

Tekena:		**Mohla:**	

7.7. Melao kakaretso ya dipaterone tsa dinomoro

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Qetella theibole ka ho tlatsa ditheme tse tharo tse latelang tsa paterone.

Inphuti	1	2	3	4	5	6	7	8	9	10
Autphuti (theme)	5	7	9							

2. Ho tlile jwang hore o fumane theme e latelang ho tloha themeng e fetileng?

3. Na seo o se fumanang ka hodimo se tswellisa ho tshwana ha paterone?

Haeba phapano dipakeng tsa ditheme tsa paterone e tshwana ka mokgwa o tswellisang paterone, e bitswa khonstente diferense.

4. Ngola autphuti (theme)ka nngwe o sebedisa khonstente diferense. Qetella theibole.

Iniphuti	1	2	3	4
Autphuti	5	7	9	11
	2 + 3	**2** + **2** + 3		
Dihlopha tsa 2	1 × **2**+ 3	2 × **2**+ 3		

5. Hlalosa molaokakaretso ka mantswe

6. Ngola polelopalo le ha e le efe pateroneng.

7. Ngola molaokakaretso wa paterone ka mokgwa wa polelopalo o sebedisa pleisihoulda efe kapa efe, moo pleisihoulda e leng inphuti velu.

Tekena:		Mohla:	

7.8. Melao kakaretso ya dinyumeriki phethene di ya tswelliswa

Mohla		**Mosebetsi wa phaposi**		**Mosebetsi wa hae**	

1. Qetella theibole ka ho tlatsa ditheme tse tharo tse latelang tsa paterone.

Inphuti	1	2	3	4	5	6	7	8	9	10
Autphuti (theme)	3	6	9							

2. Ho tlile jwang hore o fumane theme e latelang ho tloha themeng e fetileng?

3. Na seo o se fumanang ka hodimo se tswellisa ho tshwana ha paterone?

4. Ngola autphuti (theme)ka nngwe o sebedisa khonstente diferense. Qetella theibole.

Inphuti	1	2	3	4
Autphuti	3	6	9	12
	3	**3** + **3**		
Dihlopha tsa 2	1 × **3**	2 × **3**		

5. Hlalosa molaokakaretso ka mantswe.

6. Ngola polelopalo le ha e le efe pateroneng.

7. Ngola molaokakaretso wa paterone ka mokgwa wa polelopalo o sebedisa pleisihoulda le ha e le efe, moo pleisihoulda e leng boleng ba inphuti.

Tekena:		**Mohla:**	

7.9. Melaokakaretso ya dinyumeriki phethene, e ya tswelliswa.

Mohla		**Mosebetsi wa phaposi**		**Mosebetsi wa hae**	

1. Qetella theibole ka ho tlatsa ditheme tse tharo tse latelang tsa paterone

Inphuti	1	2	3	4	5	6	7	8	9	10
Autphuti (Theme)	2	4	8							

2. Ho tlile jwang hore o fumane theme e latelang ho tloha themeng e fetileng?

3. Na seo o se fumanang ka hodimo se tswellisa ho tshwana ha paterone?

Haeba reshiyo dipakeng tsa ditheme tsa paterone e tshwana ka mokgwa o tswellisang paerone, e bitswa **khonstente reshiyo**.

4. Ngola autphuti (theme)ka nngwe o sebedisa khonstente reshiyo. Qetella theibole.

Inphuti	1	2	3	4
Autphuti	2	4	8	16
	2	**2 × 2**		

5. Hlalosa molaokakaretso ka mantswe.

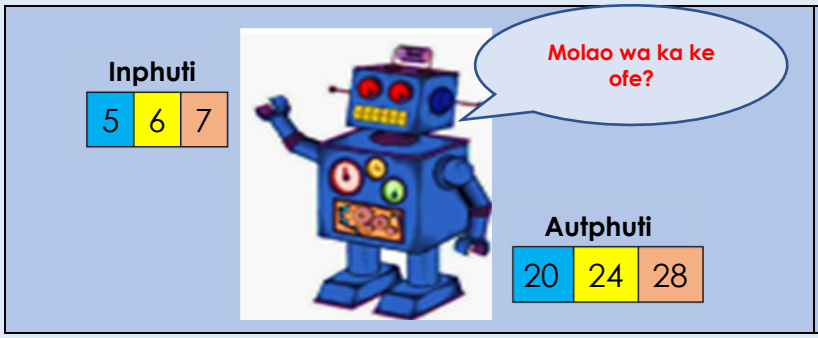
6. Ngola polelopalo le ha e le efe pateroneng

Tekena:		**Mohla:**	

7.10. Diflodaegramo: Inphuti, autphuti le molao

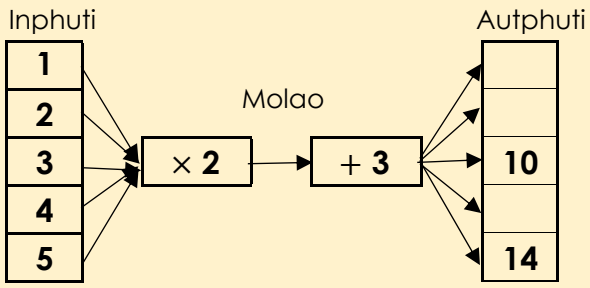
Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

1. Ithute roboto. E re bolella eng? Qetella theibole.



Molao	
Inphuti	**Autphuti**
5	20
6	24
7	28
8	
9	
10	

O ka khalkhuleitha autphuti velu ka potlako hakae?

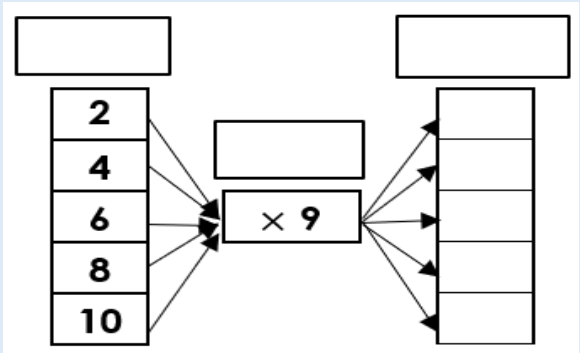


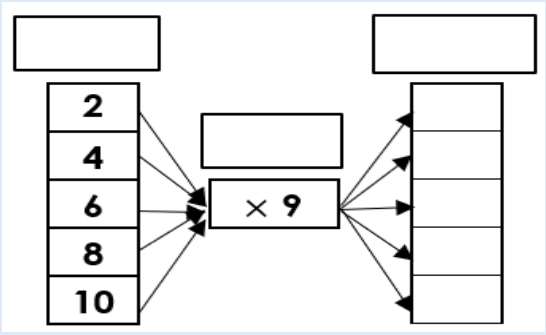
Flou daeagramo e lekalekana ha **inphuti** (jwalokaha e fetotswe ke molao) e lekana le **autphuti**

Taba ya bohlokwa mabapi le molao ke hore tatellano ya dioporeishene e kanna ya se fetolwe!

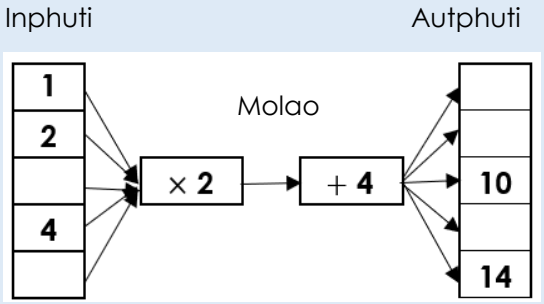
2. Qetella flodaegramo

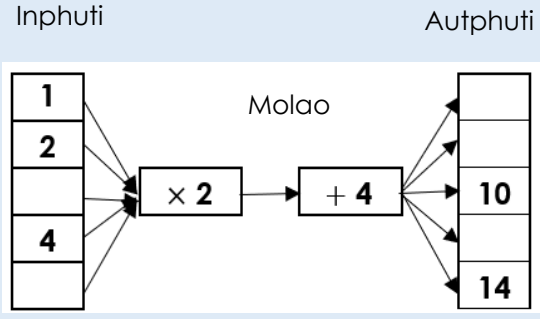
a)





b)





Tekena:		Mohla:	

7.11. Diflodaegramo: Inphuti, autphuti le molao, di ya tswelliswa

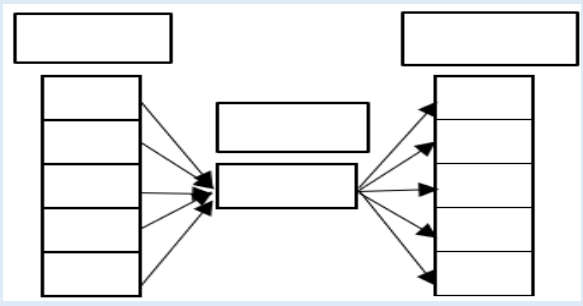
Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

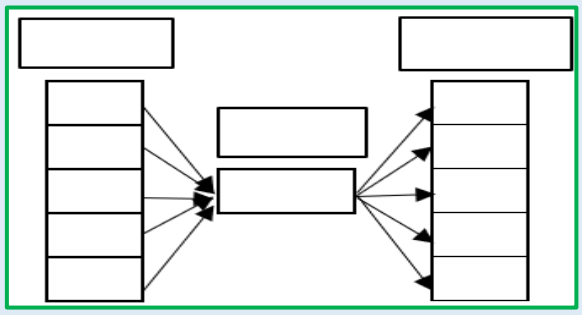
1. Araba tse latelang.

a) Ngola paterone ya nomoro ka dinomoro tse 6 bakeng sa tse latelang:

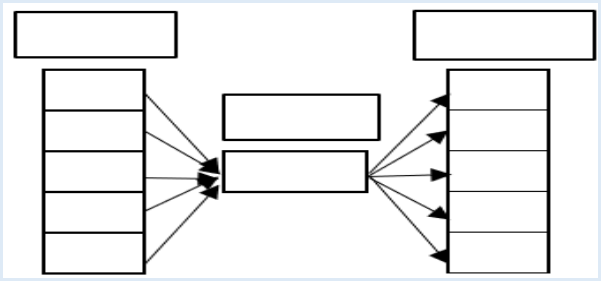
Ke khaontha ka bo 3. Ke qala ka nomoro e ivene e nyane ho 4. Paterone ya ka ke efe?

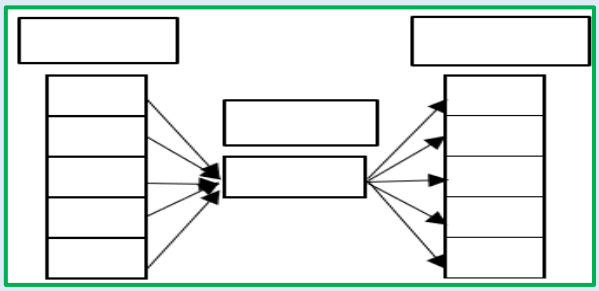
b) Bontsha paterone eo o e fuweng ho (a) ka flodaegramong.



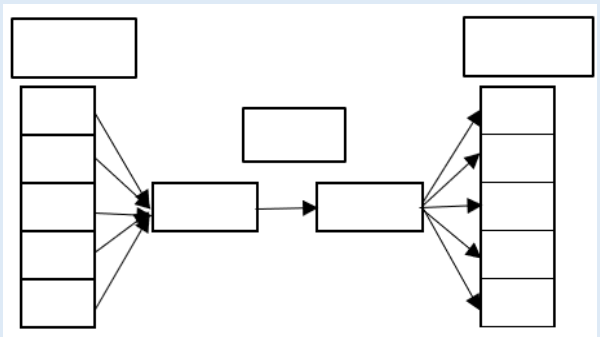


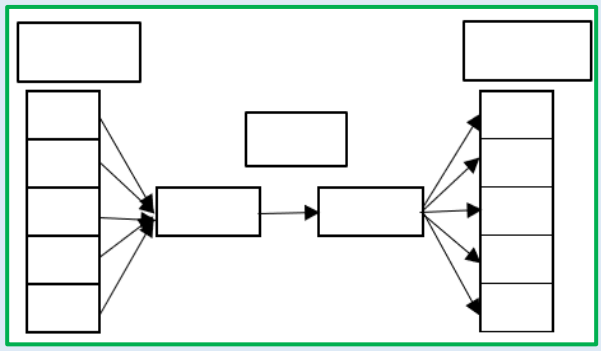
2. Dinomoro tsa ka tsa inphuti ke 1, 2, 3, 4 le 5. Molao wa ka ke × 10. Dinomoro tsa ka tsa autphuti ke dife? Bontsha ka flodaegramo.





3. Dinomoro tsa ka tsa inphuti ke 1, 3, 4, 5 le 7. Molao wa ka ke × **10** + **6.** Dinomoro tsa ka tsa autphuti ke dife? Bontsha ka flodaegramo.





Tekena:		Mohla:	

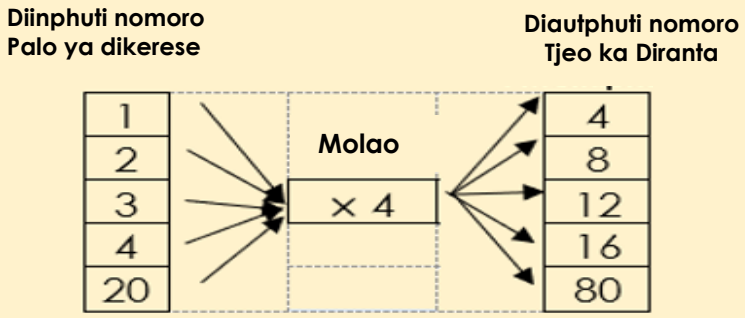
7.12. Diekhwivalente fomo

Mohla		Mosebetsi wa phaposi		Mosebetsi wa hae	

Re ka hlalosa ditjeo tsa dikerese ka ditsela tse fapaneng:

- **Ka mantswe:** Kerese e le nngwe ke R4.
- Jwalo ka **moralo wa khalkhuleishene (molao)**: Tjeo ya dikerese = nomoro ya dikerese × 4

  Autphuti = Inphuti × 4
- **Flodaegramong:**



- **Ka polelopalo**

Polelopalo e bulehileng	Polelopalo e kwetsweng
3 × 4 = _____	3 × 4 = 12

1. Ha mora a hlaha, ntatae o ne a le dilemo tse 30. Ntate o dilemo tse kae ha mora a le dilemo di 12?

   Ka dilemolemo, mme o ne a ngotse dilemo tsa ntate le tsa mora ka tsela e latelang, theiboleng:

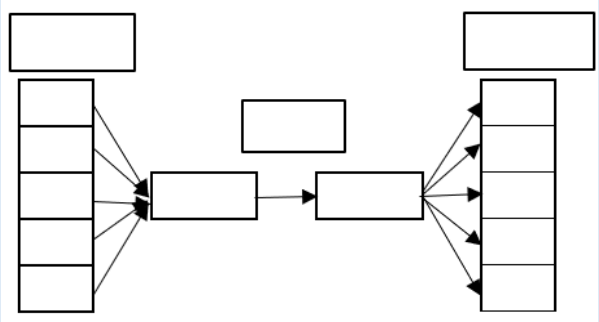
Ho hola ha mora ka dilemo	0	1	2	3	4	5	6		12		20
Ho hola ha ntate ka dilemo	30	31	32	33	34	35					

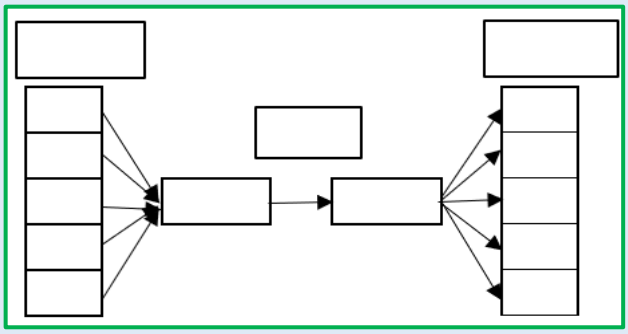
a) Hlalosa dilemo tsa ntate.

b) Ngola molaokakaretso ho fumana dilemo tsa ntate ka mantswe a hao.

c) Ngola polelopalo ya paterone.

d) Bontsha dilemo tsa ngwana le tsa ntate ka flodaearamo





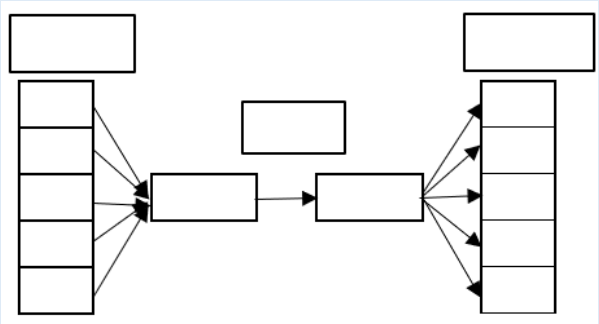
2. Ithute paterone e ka tlase mme o arabe dipotso tse latelang
   1; 4; 7; 10; 13; 16; 19; 22; 25; 28; 25

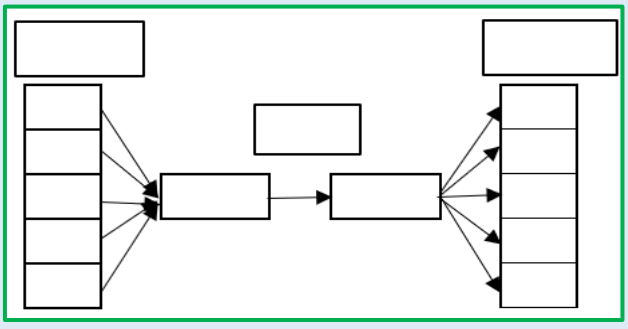
a) Hlalosa hore na paterone e bopilwe jwang.

b) Bontsha paterone theiboleng

Molao:										

c) Bontsha paterone flodaegramong





d) Ngola polelopalo bakeng sa paterone.

Tekena:		**Mohla:**	