

Kitab nintika nî - 1



Livre de Calcul - 1

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SIL Tchad
Hadjer Hadid
2022

Langue: massalit, parlée dans la préfecture d'Assounga à l'est du Tchad, et au Soudan, surtout dans l'Etat fédéral du Darfour occidental.

Titre en français : Livre de Calcul - 1

Genre : matériel didactique – livre de calcul

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Site de ressources en langue massalit -

<https://masarak.org/>

Kanaa ndâña

Kitab gi nintika nî 1 mbo 2 mbo ye. Kaa kâddunjar kanaa masaraka nûre gâr enteye. Kitab gu gîlanj hâkkuma Cad tag ndîjar, kaŋgi yakunuŋ kana ta fandanj nogoloŋij nulte tulte mbo tîndîjara. Kaa guca kâddi kanaa Gera taŋa mbo nâyirii wî kul kanaa tuu rok ena. Mi du inta molo kul kanaa masarak mbo morgoloŋijaye.

Kitab 1 ti kûde dora mbo ndisisa mbo tonosinje. Hâgudu mi nîkariyaa tuu lîjira mîniŋa mâyiriwo rok menaye. Nîkariyaa wîwo alle kitab “Nitika masaraka mosiŋi!” Adire Sileman Abakar sene 1996 tena gi molo mulaye.

Kitab 2 gi du kûde nûmukura mbo neŋa mbo tonosinje. Hâgudu lêleŋ subu taŋ mâri na wî mbo ayeje sene taŋa mbo nintika njindi taŋa mbo koy tenegiye. Hâgudu nintika njiŋanta nî mbo gâyiriya njiŋanta nî mbo tonosinje.

Préface

Ces livres de Calcul-1 et Calcul-2 sont destinés aux locuteurs de la langue massalit. Les livres destinés aux classes de post-alpha des associations membres de la FAPLG (Fédération des Associations de Promotion des langues du Guera), à la base des livres de calcul du Département pour l'Alphabétisation et la Promotion des Langues Nationales (DAPLAN) du Tchad ont été traduit en massalit.

Le livre Calcul-1 présente l'addition et la soustraction. Dans la version massalit, nous avons ajouté plusieurs questions de la vie courante tirées du livre du calcul « Nitika masaraka mosiŋi ! » réalisé par Collection PROPELCA Cameroun et adapté par Souleyman Abakar (édition expérimentale, 1996).

Le livre Calcul-2 présente la multiplication et la division ainsi que des notions rudimentaires permettant à l'apprenant de connaître les sept jours de la semaine, les douze mois de l'année et la lecture de l'heure. Il introduit aussi la lecture et le calcul des pièces et des billets de banque ainsi que quelques notions de gestion élémentaire (gestion du micro-commerce, des micro-projets, etc.)

Giraye 1

Sumiņ nintika nû

1



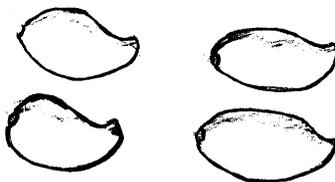
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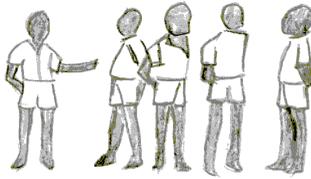
3



4



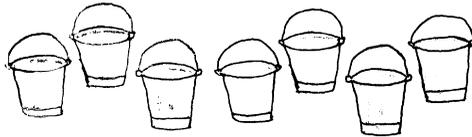
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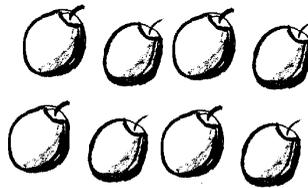
6



7



8

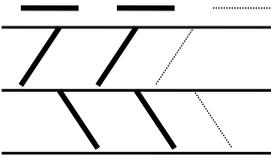


9

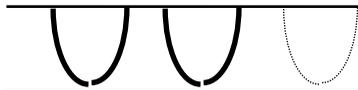
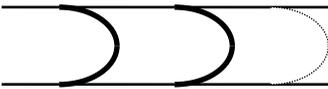


Katab geya sumiņ nî

Bûtasi :

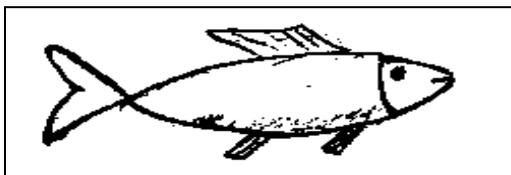


Kodoka mbo kodoka ta caki mbo :



Gosinja 1 mbo 2 mbo

1

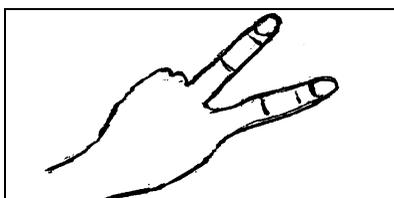


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||

1

2



∩

∟

2

Gosinja 3 mbo 4 mbo

3

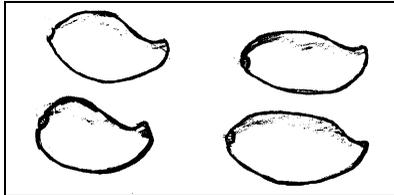


3 3 3

3

3

4



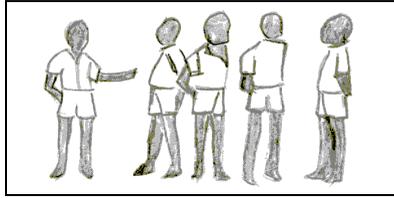
4 4 4

4

4

Giraye 2

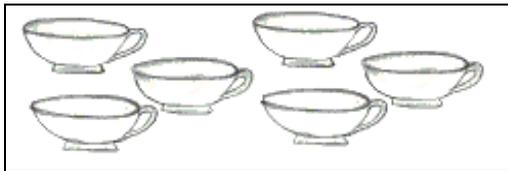
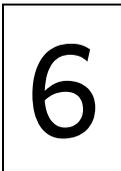
Gosinja 5 mbo 6 mbo



5 5 5

5

5



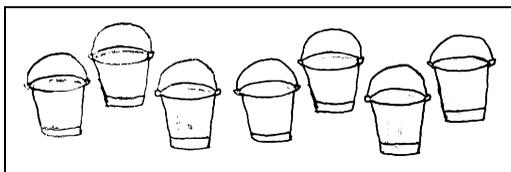
6 6 6

6

6

Gosinja 7 mbo 8 mbo

7

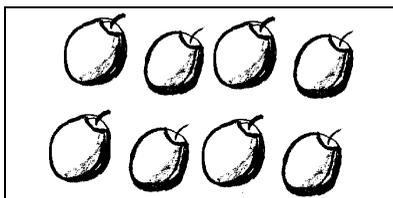


7 7 7

7

7

8



8 8 8

8

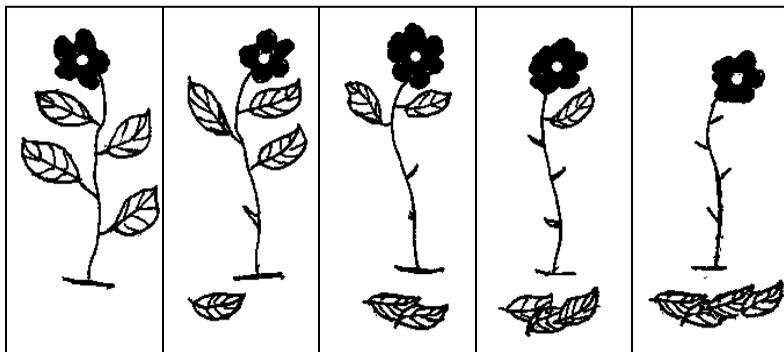
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Giraye 3

Gosinja 9 tag



Kûyyo nosinja



4

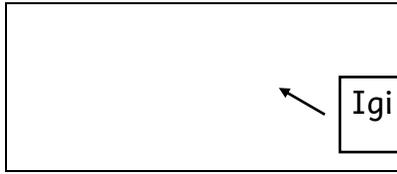
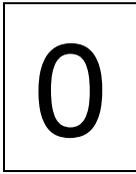
3

2

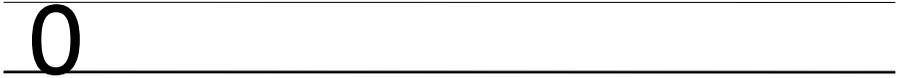
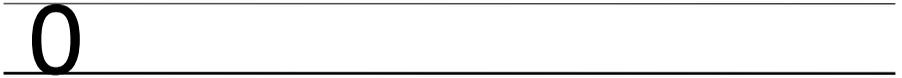
1

0

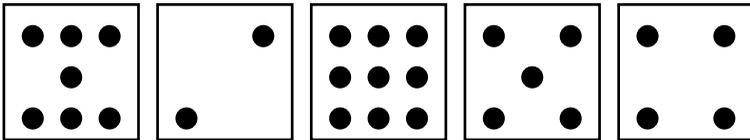
Gosinja 0 tag



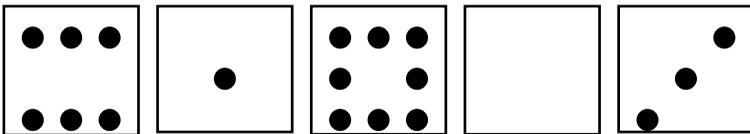
Igi fere ye !



Gulasira 1 : Landir jera – Kûlukta sânduk mo ninda wî nitin, dîsir îniṅam sumiṅ nduṅ:

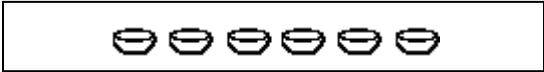
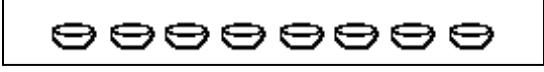
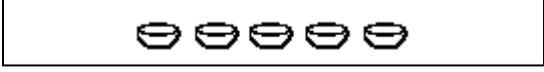
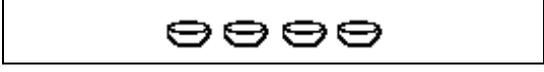


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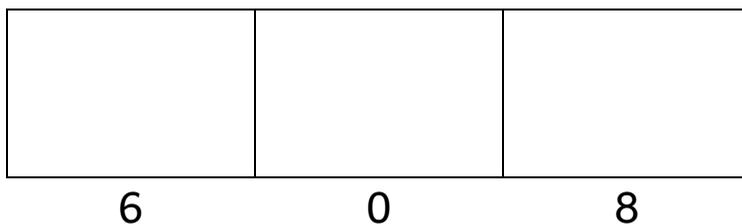
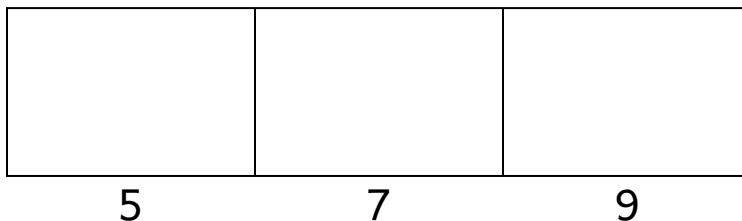


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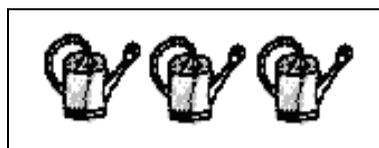
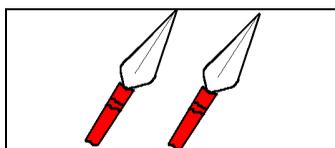
Gulasira 2 : Koraṅ sânduk ta mana wî nintina, sumiṅ
îniṅa mbo njiraṅa nîbin:

2	
9	
3	
6	
1	
5	
0	
8	
3	
7	
4	

Gulasira 3 : Sumu jîkala, sânduk mo âsurosi ken:

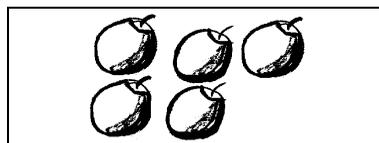


Gulasira 4 : Âsurosi jîkala, dîsir îniņam sumiņ nduņ:



...

...

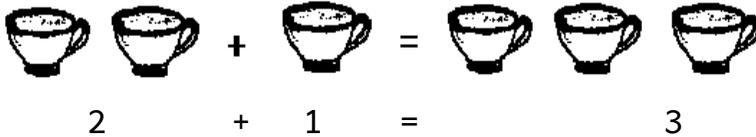


...

...

Giraye 4

Dora : « + » (rok)



Usumi gi « + » dora nî ye. Ti dora ambenjereye.

Usumi gi du « = » tebet de lasira molo dûmmo undunjiye. Tiro « gûkasa » uriye.

Usumi gi hâbutuu gê gê na ambenjereye « ... = ... ».

Dora tiro gi noŋ de mundunji: $7 + 2 = 9$

hâgudu gi noŋ dole lo dîsir koy mundunji:

$$\begin{array}{r} 7 \\ + 2 \\ \hline 9 \end{array}$$

Nenjera:

$$3 + 1 = 4$$

$$4 + 5 = 9$$

$$5 + 3 = 8$$

$$\begin{array}{r} 3 \\ + 1 \\ \hline 4 \end{array}$$

$$\begin{array}{r} 4 \\ + 5 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 5 \\ + 3 \\ \hline 8 \end{array}$$

Gulasira : Nintika meni:



$$2 + 5 = \dots$$

Mintini :

$3 + 6 =$

$1 + 3 =$

$5 + 3 =$

$4 + 4 =$

$2 + 2 =$

$6 + 1 =$

$4 + 3 =$

$5 + 4 =$

$6 + 2 =$

$4 + 2 =$

$1 + 5 =$

$7 + 1 =$

$8 + 1 =$

$1 + 4 =$

$2 + 7 =$

$2 + 5 =$

Lîjira mînim hâbutuu mige wî kûjom mintini:

1. Adam kimiŋ mbara tene. Kima yakunuŋ binu binu tûŋa, binije ŋgarna tûŋa?
2. Kaŋgi koroo mbara tene. Koro yakunuŋ monŋo tene-ken, monŋeta ŋgarna tene kaŋgi gi?
3. Nura binu tu ne, hâgudu binije mbara tarka. Toron binije ŋgarna tene?
4. Katir monŋeta mbara torona, baba ta du tu nda todorona. Kooy ŋgarna ûka?
5. Adam kûŋoo kaŋ tenen, baba ta du tu tûŋa, Adam toron kûŋoo ŋgarna tene?
6. Katir subbo sû tu torona, hâgudu ŋerem kaŋ torona. Ŋgarna torona lêle tîlem?
7. Da koraŋ as ne koro tu torona. Kooy toron koraŋ ŋgarna tene?
8. Dûŋga riyalko tene, baba ta riyalta as tûŋa. Dûŋga riyalta ŋgarna tene?
9. Adam dee kaŋ, tîce mbara tene. Kooy malta ŋgarna tene?
10. Yaya kokor mbara subbo ron, hâgudu kaŋ ŋerem torona. Kooy ŋgarna torona lêle tîlem?

Giraye 5

Mirsi sumiņ nîņ

Sumiņ wî gâr mena mosiņa, joo kaņ kaņ katab meni:

0 _____ _____ _____ kûyyo

1 _____ _____ _____ tîyaw

2 _____ _____ _____ mbara

3 _____ _____ _____ kaņ

4 _____ _____ _____ as

5 _____ _____ _____ tur

6 _____ _____ _____ iti

7 _____ _____ _____ mârî

8 _____ _____ _____ aya

9 _____ _____ _____ âday

Lîjira mînim hâbutuu mige wî katab mena mintini:

1. Kaŋgi kimiŋ mbeli tur kara mbo tene, kooy kimiŋ ŋgarna tene? Masal: $5 + 1 = 6$
2. Adam kokori mbo dîkta tur mbo tene, kooy kokor ŋgarna tene?
3. Kala moŋgeta iti nôma, tîle rayŋgi mbo tene. Kooy moŋgeta ŋgarna tene?
4. Nura asee kora mbo fîlta koraŋ iti mbo ndîŋ torona. Kooy toron koraŋ ŋgarna tîndiŋa?
5. Dûŋga tîce jîsaa tur, dûni mbara tene. Toron kooy ŋgarna tene?
6. Kima gendegu moŋgeta mbara ŋan, âmin du tur tiŋana. Kooy toron ŋgarna tiŋana?
7. Adam binije as tenen, Katir du binije kaŋ tene. Kooy lo toron binije ŋgarna ene?
8. Kala asee koraŋ kaŋ, kâcamuu koraŋ as torona. Kooy toron ŋgarna ûka?
9. Yaya tîce mâri, jâwi mbo tene. Kooy toron malta ŋgarna tene?
10. Dûŋga binu tîyarko ŋû, hâgudu binije mâri baba to ko tûŋa. Kooy binije ŋgarna tenere?

11. Tañi tatarta tur caki dol ne, hâgudu kañ caki tu dol tene. Kooy tatarta ngarna tene?

12. Nura mongeta kañ subbo ñan, tur ñerem tiñana. Kooy ngarna tiñana?

13. Ahmat riyalta as tenen, baba ta riyalta as tûña. Kooy toron ngarna tene?

14. Katir tumurta as subbo njiñan, as ñerem tinjiñana. Kooy toron ngarna tinjiñana?

15. Kaa iti lo âsurum waka. Mbara dummo wanarka tîran ngarna ûka?

16. Kala Asta kâli mbara, mbeli iti tene. Toron kimiñ ngarna tene?

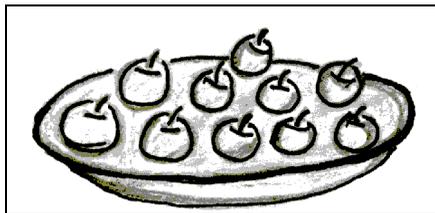
17. Nura tatarta iti tena, Kaltam kañ tena. Kooy ngarna ena?

18. Adam riyalta kañ tenen, baba ta riyalta iti tûña. Kooy riyalta ngarna tene?

Giraye 6

Ûtukko gosinja

10



Koroo mbara na sîkal:



Koroo mbara na wîm, ñagaramta ûtuk mene. Hâgudu sumiñ kûyya molo âday mosiña : 0, 1, 2, 3, 4, 5, 6, 7, 8, 9. Wî kooy ûtuk ye. Sumi ûtuk molo dole minnde-ken, sumiñ wî modoronti.

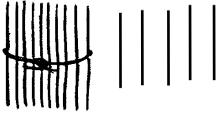
Bûtasi ucuña wî ûtuk-ûtuk ye. Sule ninda wî tîlo-tîlo ye. Ûndi tîle gi ûtuk tenegiye.



Ûndi 1 mbo 0 mbo = 10



Ûndi 1 mbo 1 mbo = 11



Uñdi 1 mbo 5 mbo = 15



Ûndiđ 2 mbo 2 mbo = 22

	Ûtukta	Tîle-Tîle
10 =	1	0
11 =	1	1
15 =	1	5
22 =	2	2

Sumi yakunuj joo kađ kađ katab ken:

10 _____



11 _____



12 _____



13 _____



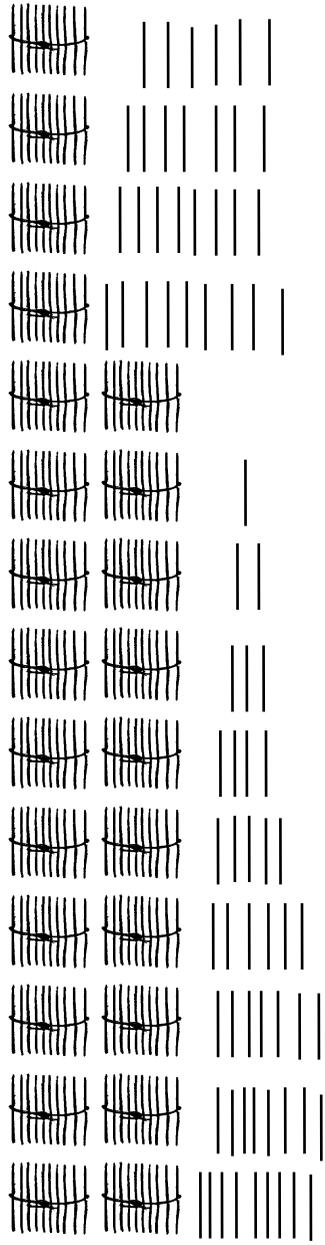
14 _____

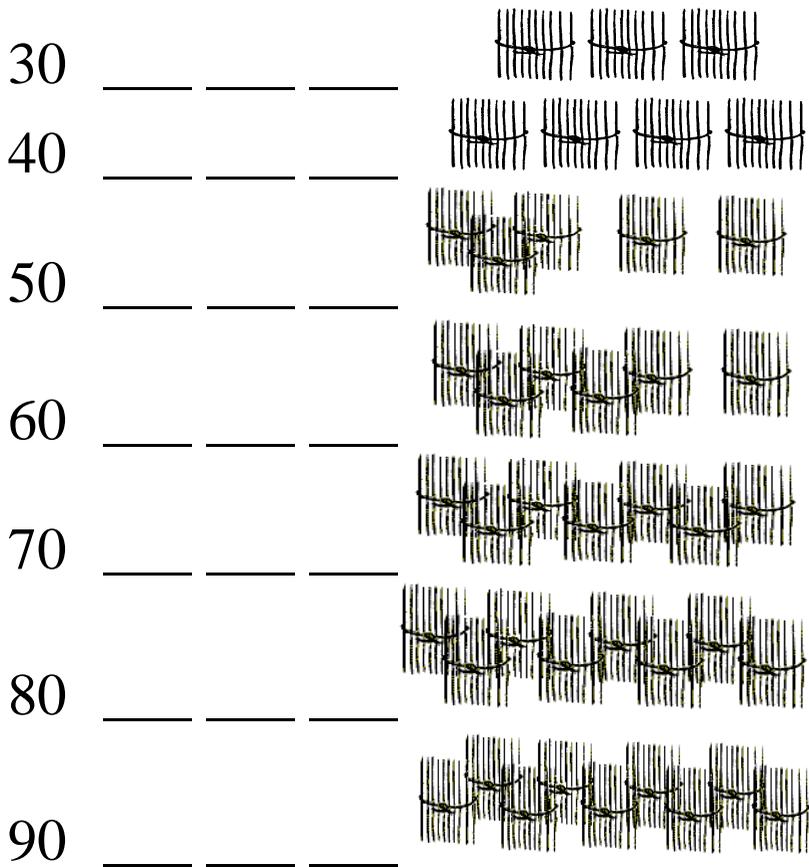


15 _____



16 _____
17 _____
18 _____
19 _____
20 _____
21 _____
22 _____
23 _____
24 _____
25 _____
26 _____
27 _____
28 _____
29 _____





Lîjira mînim hâbutuu mige wî katab ken mintini:

1. Kaltam kokor aya tenen, Katir mbara tûna. Toron ngarna tene?
2. Yaya binije mbara torona, Katir du binije aya torona. Kooy tîran ngarna orona?
3. Asta mongeta âday tenen, Nura tu tûna. Kooy ngarna tene?
4. Adam mongeta mâri sûbbo ndûnun, kaŋ ñerem tûndununa. Kooy ngarna ûka?
5. Nura koraŋ kaŋ asee nîŋ ne, hâgudu mâri kâcamuu nîŋ tene. Kooy toron koraŋ ngarna tene?
6. Yaya mbeli iti, kâli as tene. Kooy kimiŋ ngarna tene?
7. Mama Mahamat leker tur Adre ne, tur Tôŋgori tene. Kooy leker ngarna tene?
8. Ahmat dee mbara gendegu sûbbo ron, aya ñerem torona. Kooy ngarna torona?
9. Tîrimbilta as kusul inden, tuu iti kar usula. Kooy ngarna ûka?
10. Dûnga tîce tur gendegu tîban, tur âmin tidibana. Kooy ngarna tîdibana?

Giraye 7 Acal sumiņ nî 0 molo 99 :

0	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

- Gulasira 1 :
- kanaa mbo 20 molo 30 nintin
 - kanaa mbo 35 molo 45 nintin
 - kanaa mbo 52 molo 64 nintin
 - kanaa mbo 70 molo 80 nintin
 - kanaa mbo 88 molo 100 nintin

Gulasira 2 : Sumiņ wî wo landira katab ken:

29 _____

60 _____

42 _____

14 _____

38 _____

17 _____

53 _____

76 _____

85 _____

91 _____

68 _____

99 _____

24 _____

57 _____

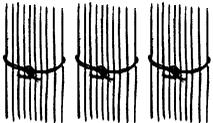
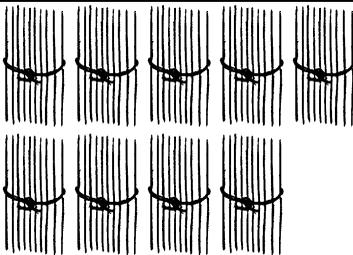
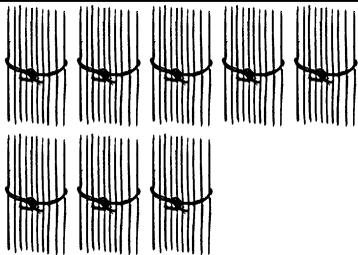
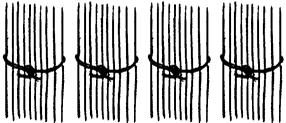
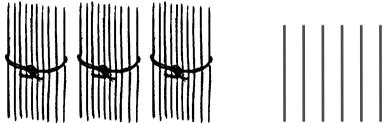
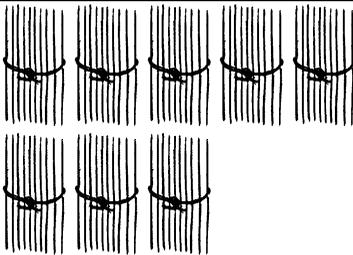
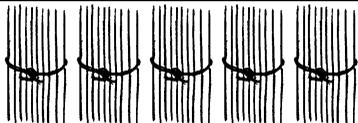
Gulasira 3 : Ganii feree wîm sîmiņ kûyya wî nandam:

20 21 23 24 25 27 28

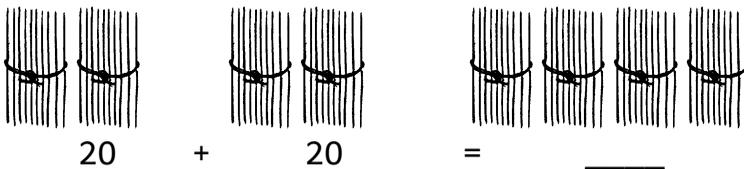
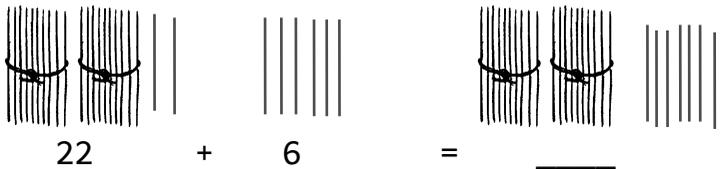
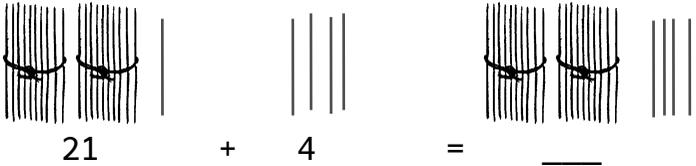
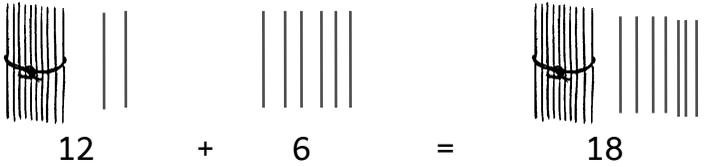
46 48 49 50 53

79 82 84

Giraye 8 Gulasira 4 : Ûndi yakunuŋ bûtasi 10 tene.
 Sânduk mo jîkala, bûtasi nganna tene-ken katab ken:

 <p style="text-align: right;">...</p>	 <p style="text-align: right;">...</p>
 <p style="text-align: right;">...</p>	 <p style="text-align: right;">...</p>
 <p style="text-align: right;">...</p>	 <p style="text-align: right;">...</p>
 <p style="text-align: right;">...</p>	 <p style="text-align: right;">...</p>
 <p style="text-align: right;">...</p>	 <p style="text-align: right;">...</p>

Gulasira 5 : Bûtasi wî awun ambenin, nintika wî mintini



Gulasira 6 : Mintini:

12 + 7 = 32 + 11 = 27 + 20 = 6 + 7 =

24 + 3 = 20 + 15 = 42 + 6 = 51 + 5 =

74 + 13 = 16 + 20 = 84 + 10 = 68 + 20 =

Gulasira 7 : Mîkala dole lo dîsir mintini :

$$\begin{array}{r} 23 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 45 \\ + 4 \\ \hline \end{array} \quad \begin{array}{r} 36 \\ + 21 \\ \hline \end{array} \quad \begin{array}{r} 57 \\ + 22 \\ \hline \end{array} \quad \begin{array}{r} 36 \\ + 41 \\ \hline \end{array}$$

$$\begin{array}{r} 34 \\ + 22 \\ \hline \end{array} \quad \begin{array}{r} 16 \\ + 32 \\ \hline \end{array} \quad \begin{array}{r} 73 \\ + 24 \\ \hline \end{array} \quad \begin{array}{r} 47 \\ + 10 \\ \hline \end{array} \quad \begin{array}{r} 23 \\ + 21 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ + 12 \\ + 23 \\ \hline \end{array} \quad \begin{array}{r} 17 \\ + 30 \\ + 41 \\ \hline \end{array} \quad \begin{array}{r} 15 \\ + 4 \\ + 50 \\ \hline \end{array} \quad \begin{array}{r} 25 \\ + 32 \\ + 32 \\ \hline \end{array} \quad \begin{array}{r} 61 \\ + 18 \\ + 20 \\ \hline \end{array}$$

$$\begin{array}{r} 23 \\ + 23 \\ + 23 \\ + 20 \\ \hline \end{array} \quad \begin{array}{r} 24 \\ + 31 \\ + 13 \\ + 10 \\ \hline \end{array} \quad \begin{array}{r} 68 \\ + 10 \\ + 10 \\ + 11 \\ \hline \end{array} \quad \begin{array}{r} 44 \\ + 3 \\ + 1 \\ + 40 \\ \hline \end{array} \quad \begin{array}{r} 52 \\ + 20 \\ + 6 \\ + 11 \\ \hline \end{array}$$

Giraye 9

Landir jera

Sumiņ wî wo landira katab ken :

$19 \quad \underline{\hspace{2cm}}$

$60 \quad \underline{\hspace{2cm}}$

$32 \quad \underline{\hspace{2cm}}$

$14 \quad \underline{\hspace{2cm}}$

$35 \quad \underline{\hspace{2cm}}$

$17 \quad \underline{\hspace{2cm}}$

$53 \quad \underline{\hspace{2cm}}$

$72 \quad \underline{\hspace{2cm}}$

$82 \quad \underline{\hspace{2cm}}$

$91 \quad \underline{\hspace{2cm}}$

$78 \quad \underline{\hspace{2cm}}$

$99 \quad \underline{\hspace{2cm}}$

$26 \quad \underline{\hspace{2cm}}$

$57 \quad \underline{\hspace{2cm}}$

Mîkala dole lo dîsir mintini :

$$\begin{array}{r} 9 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ + 6 \\ \hline \end{array}$$

42	50	20	15	62
<u>+ 6</u>	<u>+ 3</u>	<u>+ 6</u>	<u>+ 4</u>	<u>+ 2</u>

63	45	37	88	27
<u>+21</u>	<u>+30</u>	<u>+62</u>	<u>+11</u>	<u>+10</u>

20	40	50	80	30
<u>+30</u>	<u>+10</u>	<u>+20</u>	<u>+10</u>	<u>+30</u>

10	20	10	71	61
+ 12	+ 30	+ 40	+ 18	+ 23
<u>+ 27</u>	<u>+ 40</u>	<u>+ 30</u>	<u>+ 10</u>	<u>+ 10</u>

23	24	61	44	61
+ 21	+ 30	+ 10	+ 2	+ 20
+ 15	+ 12	+ 6	+ 3	+ 6
<u>+ 20</u>	<u>+ 12</u>	<u>+ 21</u>	<u>+ 30</u>	<u>+ 10</u>

Lîjira mînim hâbutuu mige wî katab ken mintini:

1. Lêle sîgko zazari kar tîce 6 tidibana. Noroke tañ kâddur ûka, hâkkoy tîce 2 tidibana. Lêle ilim tîce nganna tidibanan dole lo dîsir katab gena toron.

$$\begin{array}{r} \text{masal:} \quad \text{tîce} \quad 6 \\ \quad \quad \quad \text{tîce} \quad + 2 \\ \hline \quad \quad \quad \text{tîce} \quad 8 \end{array}$$

2. Babikir jâgiyetam moŋgeta 2 ndûn, hâgudu juwafata 3 ndûn, lâmunke 1 tûnduŋuna. Hâkkoy moŋgeta 4 tûnduŋunto tinnde. Inko jâgiyetam sîŋgee goŋ nganna ûkasi-ken dole lo dîsir katab gena toron.

3. Yakub lêle sîgko kûŋoo 14 ndîŋ torona, dîmingatam 5 ndîŋ torona, lêle kaŋgalaŋam 10 ndîŋ torona. Yakub kûŋoo nganna ndîŋ toronan dole lo dîsir katab gena toron.

4. Hawa fîlta koraŋ 10 torona, tî ta du koraŋ 12 torona. Da îni du 13 torona. Inko fîlta îniŋa koraŋ nganna ûkasi-ken dole lo dîsir katab gena toron.

5. Yaya asee chuwalta 6 karra tam tununcuna. Hâkkoy chuwalta 8 tunucunto tinnde. Inko chuwalta nganna tanaŋtiyan dole lo dîsir katab gena toron.

Giraye 10 Ndisisa : « - » (ndisisa / maya)

Usumi gi « - » ndisisa ambenjere. In ken hâbutuu mindisto minnde-ken tiro mbo migegiye.
Ndisisa tiro dîsir munduŋa wî noŋ nindo migegiye:

$$10 - 6 = 4$$

Hâgudu dole lo dîsir koy migegiye:
$$\begin{array}{r} 10 \\ - 6 \\ \hline 4 \end{array}$$

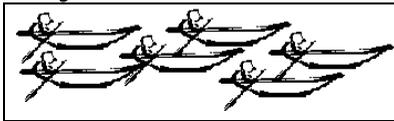
Nenjera 1 :

Sîŋgee ñiŋ san mo 10 inde. Kima tu 6 kul ñagatim tucuŋa, nêreŋa wî san mo 4 ye.

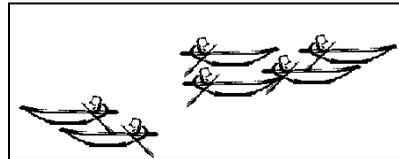


$$10 - 6 = 4$$

Nenjera 2 :



Waldamaŋ 6 lo markubaŋ ñuŋ saam wamalanjen îŋa.



Si in sêynu, 2 na înim wâlandira, 4 na ûyom waka.

$$6 - 2 = 4$$

Lîjira mînim hâbutuu mige wî kûjom mintini:

1. Katir dee mbara tene, Nura tu tula. Ægarna nda êrenji Katirko?
2. Baba halawa mbara ândiya, halawa mbara na Adamko âña. Ægarna mba êrenji?
3. Adam galamta kaŋ ne, Katirko tu tûña. Ægarna nda êreŋa?
4. Asta galamta kaŋ raku, Katirko mbara tûña. Ægarna nda êreŋa?
5. Kokori mîinig kedem kaŋ tena, kedem kaŋ na mi mula. Ægarna êreŋa?
6. Nura dee as ne, Adamko dee mbara tûña. Dee Ægarna nda êreŋa?
7. Nura gonja tur ron, gonjo tu kala wo tûña. Ægarna nda êreŋa?
8. Kala tumurta tur torona, Nura as na tula, Ægarna nda êreŋa?
9. Ahmat malta mâri tene, tu gu ndîŋ torona, Ægarna nda êreŋa?

Lîjira mînim hâbutuu mige wî katab ken mintini:

10. Tanji tatarta mîri tenen, iti na wâdara, ngarna êreŋa? Masal: $7 - 6 = 1$

11. Kokori kedem mîri tenen, mbara na wâŋina, ngarna kallaa êreŋa?

12. Adam kitabta mîri ron, mbara na ndîŋ torona. Ngarna nda êreŋa?

13. Kora kedem mîri tenen, kaŋ na wârmina, ngarna êreŋa?

14. Katir kokor mîri ne, as na tîyarko tûŋa, ngarna nda êreŋa?

15. Asta kedem aya tenen, mbara na wârmina, ngarna êreŋa?

16. Adam kokor aya tene, iti na sesi ye, dîkta ngarna tene?

17. Dûŋga binije aya ne, tu Adumko tûŋa, ngarna êreŋa?

18. Kaŋgi tîce mîri ne, tîce mîri na ndîŋ torona, ngarna nda êreŋa?

19. Tanji sîŋgee aya tenen, kaŋ kaŋgi tefela. Ngarna êreŋa?

20. Ahmat malta aya ne tur na ndîŋ torona, ŋgarna êreŋa?

21. Nura moŋgeta ûtuk ne, tu tiŋana. Ŋgarna nda êreŋa?

22. Katir fîlta chuwalta ûtuk ne, âday na ndîŋ torona. Ŋgarna nda êreŋa?

23. Kala kôdokosi ûtuk tenen, mbara na wârmina. Ŋgarna êreŋa?

24. Asta jôci mbo tîce mbo toron ûtuk tenen, kaŋ na tîce ye. Jôci ŋgarna tene?

25. Ahmat hamamta ûtuk tene, kaŋ na dûni ye. Jîsaa ŋgarna tene?

26. Katir dee ûtuk tenen, iti na îsana. Ŋgarna nda êreŋa?

27. Kimiŋ ûtuk lo ratmo ûkan waka, as na lûkan îŋara. Ŋgarna lûko inde?

28. Yaya moŋgeta ûtuk tarka, tur na ama awula. Ŋgarna nda êreŋa?

$$10 - 1 =$$

$$10 - 3 =$$

$$10 - 2 =$$

$$10 - 4 =$$

$10 - 5 =$

$9 - 1 =$

$9 - 2 =$

$9 - 3 =$

$9 - 4 =$

$9 - 6 =$

$8 - 1 =$

$8 - 2 =$

$8 - 3 =$

$8 - 4 =$

Gulasira 1 : Mintini:

$7 - 5 =$

$10 - 3 =$

$15 - 2 =$

$16 - 9 =$

$20 - 10 =$

$48 - 4 =$

$17 - 4 =$

$35 - 10 =$

$9 - 6 =$

$36 - 10 =$

$89 - 9 =$

$66 - 4 =$

$33 - 3 =$

$29 - 5 =$

$24 - 12 =$

Gulasira 2 : Dole lo dâsir mintini:

$$\begin{array}{r} 35 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 26 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 49 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 78 \\ - 15 \\ \hline \end{array}$$

$$\begin{array}{r} 54 \\ - 23 \\ \hline \end{array}$$

$$\begin{array}{r} 67 \\ - 43 \\ \hline \end{array}$$

$$\begin{array}{r} 93 \\ - 63 \\ \hline \end{array}$$

$$\begin{array}{r} 87 \\ - 46 \\ \hline \end{array}$$

$$\begin{array}{r} 38 \\ - 25 \\ \hline \end{array}$$

$$\begin{array}{r} 65 \\ - 23 \\ \hline \end{array}$$

$$\begin{array}{r} 54 \\ - 31 \\ \hline \end{array}$$

$$\begin{array}{r} 74 \\ - 42 \\ \hline \end{array}$$

$$\begin{array}{r} 44 \\ - 32 \\ \hline \end{array}$$

$$\begin{array}{r} 68 \\ - 13 \\ \hline \end{array}$$

$$\begin{array}{r} 37 \\ - 34 \\ \hline \end{array} \quad \begin{array}{r} 52 \\ - 22 \\ \hline \end{array} \quad \begin{array}{r} 82 \\ - 21 \\ \hline \end{array} \quad \begin{array}{r} 99 \\ - 11 \\ \hline \end{array} \quad \begin{array}{r} 57 \\ - 33 \\ \hline \end{array}$$

$$\begin{array}{r} 23 \\ - 3 \\ \hline \end{array} \quad \begin{array}{r} 25 \\ - 10 \\ \hline \end{array} \quad \begin{array}{r} 58 \\ - 26 \\ \hline \end{array} \quad \begin{array}{r} 36 \\ - 12 \\ \hline \end{array} \quad \begin{array}{r} 49 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 39 \\ - 18 \\ \hline \end{array} \quad \begin{array}{r} 48 \\ - 27 \\ \hline \end{array} \quad \begin{array}{r} 56 \\ - 13 \\ \hline \end{array} \quad \begin{array}{r} 55 \\ - 34 \\ \hline \end{array} \quad \begin{array}{r} 73 \\ - 12 \\ \hline \end{array}$$

$$\begin{array}{r} 46 \\ - 33 \\ \hline \end{array} \quad \begin{array}{r} 63 \\ - 22 \\ \hline \end{array} \quad \begin{array}{r} 84 \\ - 11 \\ \hline \end{array} \quad \begin{array}{r} 85 \\ - 14 \\ \hline \end{array} \quad \begin{array}{r} 97 \\ - 12 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ - 34 \\ \hline \end{array} \quad \begin{array}{r} 83 \\ - 33 \\ \hline \end{array} \quad \begin{array}{r} 65 \\ - 15 \\ \hline \end{array} \quad \begin{array}{r} 35 \\ - 21 \\ \hline \end{array} \quad \begin{array}{r} 77 \\ - 32 \\ \hline \end{array}$$

Giraye 11

Selteŋ gosinja

Gê de 88 lo 99 mintini...

99 ti ûtukta 9, hâgudu tîlota 9 tenegiye. Tiro molo dole mintiki-ken, selteŋ tûkasi.

10 + 10 + 10 +

10 + 10 + 10 +

10 + 10 + 10 +

10

= niŋ 100

ûtukta ûtuk mene-ken, selteŋi muri.

Acal:

Gani selteḡ ta (s)	Gani ûtuk ta (û)	Gani tîleta ta (t)
1	0	0

Gulasira 1 : Sumiḡ wî gâr meni :

selteḡ s	ûtukta û	tîleta t
	9	9
1	0	0
1	0	1
1	0	4
1	1	0
1	1	1
1	2	0
1	2	3
1	3	4
1	4	7
1	6	4

selteḡ s	ûtukta û	tîleta t
1	7	0
1	9	5
1	9	9
2	0	0
2	0	6
2	1	0
3	0	2
3	3	7
4	5	0
6	9	8
9	1	6

Gulasira 2 : Sumiņ wî mîkala, selteņ nene wî gûrko kucuņi :

301		31
99	528	275
455	45	62
	768	184

Gulasira 3 : Sûmiņ wî mîkala, ganii îniņam munduņi :

231 534 103 448 820

s	û	t
...
...
...
...
...

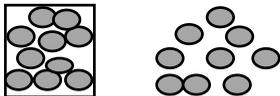
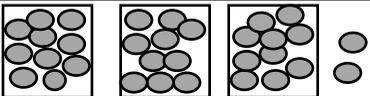
Giraye 12

Dora lama mbo

Hawa ligematta ûtuk-ûtuk kucuŋ ndîŋ toronto tinnde.

Yagu ti 19 ne, kîs tîlo tucuŋa, kîs tu gim tîle timira.

Hâgudu da ta karu 13 tûŋa, kîsta 3 nandanarku tucuŋa, 2 êreŋa.

$ \begin{array}{r} (1) \\ 1 \quad 9 \\ \downarrow \\ + \quad 1 \quad 3 \\ \hline 3 \quad 2 \end{array} $	 <p>ûtukta 1 mbo tîleta 9 mbo</p>
	 <p>ûtukta 1 mbo tîleta 3 mbo</p>
	 <p>ûtukta 3 mbo tîleta 2 mbo</p>

Nintika dole lo dîsir na wî **gani tîle tam** 9 molo dole tûkan, lamin **gani ûtuk tam** naŋ, ûtukta tuu wî mbo modoronteye.

Gulasira 1: Sumiņ wîwo jîkala nintina nod:

$$\begin{array}{r} (1) \\ 4\ 6 \\ + \underline{1\ 5} \\ 6\ \dots \end{array}$$

$$\begin{array}{r} (1) \\ 4\ 5 \\ + \underline{3\ 7} \\ \dots\ 2 \end{array}$$

$$\begin{array}{r} (1) \\ 6\ 2 \\ + \underline{2\ 8} \\ \dots\ 0 \end{array}$$

Gulasira 2: Nintina toron:

$$\begin{array}{r} 5\ 8 \\ + \underline{1\ 9} \end{array}$$

$$\begin{array}{r} 7\ 6 \\ + \underline{1\ 5} \end{array}$$

$$\begin{array}{r} 4\ 8 \\ + \underline{2\ 6} \end{array}$$

$$\begin{array}{r} 3\ 5 \\ + \underline{2\ 7} \end{array}$$

$$\begin{array}{r} 6\ 2 \\ + \underline{3\ 6} \end{array}$$

$$\begin{array}{r} 9\ 3 \\ + \underline{2\ 4} \end{array}$$

$$\begin{array}{r} 2\ 9 \\ + \underline{2\ 7} \end{array}$$

$$\begin{array}{r} 4\ 4 \\ + \underline{4\ 4} \end{array}$$

$$\begin{array}{r} 5\ 6 \\ + \underline{7\ 7} \end{array}$$

$$\begin{array}{r} 79 \\ + 65 \\ \hline \end{array}$$

$$\begin{array}{r} 88 \\ + 18 \\ \hline \end{array}$$

$$\begin{array}{r} 81 \\ + 37 \\ \hline \end{array}$$

$$\begin{array}{r} 99 \\ + 86 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ + 59 \\ \hline \end{array}$$

$$\begin{array}{r} 74 \\ + 48 \\ \hline \end{array}$$

$$\begin{array}{r} 78 \\ + 54 \\ \hline \end{array}$$

$$\begin{array}{r} 38 \\ + 28 \\ \hline \end{array}$$

$$\begin{array}{r} 91 \\ + 27 \\ \hline \end{array}$$

$$\begin{array}{r} 99 \\ + 56 \\ \hline \end{array}$$

$$\begin{array}{r} 37 \\ + 79 \\ \hline \end{array}$$

$$\begin{array}{r} 54 \\ + 98 \\ \hline \end{array}$$

Giraye 13

Nintika selteŋ mbo

Nintika selteŋ nî gi lama ûtukta gi noŋ deye.

Gani ûtuk ta gim 9 molo dole tûkan, lamin **gani selteŋ nîm** naŋ modoronteye.

$$\begin{array}{r} 126 \\ + 237 \\ \hline \end{array}$$

$$\begin{array}{r} 261 \\ + 165 \\ \hline \end{array}$$

$$\begin{array}{r} 89 \\ + 304 \\ \hline \end{array}$$

$$\begin{array}{r} 208 \\ + 405 \\ \hline \end{array}$$

$$\begin{array}{r} 158 \\ + 174 \\ \hline \end{array}$$

$$\begin{array}{r} 670 \\ + 328 \\ \hline \end{array}$$

$$\begin{array}{r} 555 \\ + 299 \\ \hline \end{array}$$

$$\begin{array}{r} 392 \\ + 408 \\ \hline \end{array}$$

$$\begin{array}{r} 488 \\ + 418 \\ \hline \end{array}$$

$$\begin{array}{r} 804 \\ + 109 \\ \hline \end{array}$$

$$\begin{array}{r} 540 \\ + 280 \\ \hline \end{array}$$

$$\begin{array}{r} 397 \\ + 397 \\ \hline \end{array}$$

$$\begin{array}{r} 256 \\ + 89 \\ \hline \end{array}$$

$$\begin{array}{r} 495 \\ + 168 \\ \hline \end{array}$$

$$\begin{array}{r} 674 \\ + 91 \\ \hline \end{array}$$

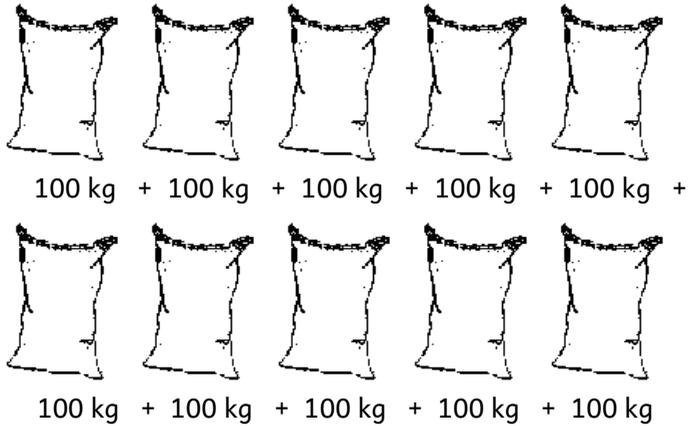
Dole lo dâsir katab ken mintini:

1. Lâbuse sîg kamisiya ko, asee koraṅ 179 torona. Hâgudu sîg jimme na ko, asee koraṅ 105 torona. In ko ti asee kooy koraṅ ṅganna torona?
2. Kono musumarta dûsuṅo tentiṅ 48 tinnde, târbezo tentiṅ 34 tinnde, hâgudu kûtu tentiṅ 28 tinnde. Kono musumarta kooy toron ṅganna tinnde?
3. Âli mbo Adireṅila mbo Dokona mbo tîran, kangi yakunuṅ morkolaṅ 250 udaṅa. Morkolaṅ kooy toron ṅganna ena?
4. Dabala leru tene, îṅjo tene, dîk daṅo tene, kokor mbara tene, hâgudu bisko tene. Yagu bis gi tisinda-kede jo tu tindiyana. Inko Dabala taṅ malta wî kooy lo joo ṅganna enegiye?

Giraye 14

Âdumar gosinja

a) Âdumo : 1000



Chuwalta asee nîŋ 10, chuwal yakunuŋ kîloŋ 100 tene.
Inko asee kooy lo tîran kîloŋ 1000 ûkasi.

$$100 \text{ kg gani } 10 = 1000 \text{ kg}$$

Gulasira 1 : Acal gu nodi:

990	991	992	993	994	995	996	997	998	999
1000	1001	1002	1003	1004	1005	1006	1007	1008	1009
1010									
1020									
1030									
1040									

b) 1000, 2000, 3000...

Sumiņ 2548 mbo 1726 mbo inko nininijiraye:

$$\begin{array}{r}
 2000 \\
 + 500 \\
 + 40 \\
 + \underline{8} \\
 \hline
 2548
 \end{array}
 \qquad
 \begin{array}{r}
 1000 \\
 + 700 \\
 + 20 \\
 + \underline{6} \\
 \hline
 1726
 \end{array}$$

	âdumar	selteņ	ûtukta	tîlo-tîlo
1000	1	0	0	0
2548	2	5	4	8
1726	1	7	2	6

Gulasira 2 : Sumiņ wî kîkala, ganii îniņam nduņi :

1033 ; 3564 ; 6208 ; 2190 ; 5576

âdumar	selteņ	ûtukta	tîlo-tîlo
...
...
...
...
...

Gulasira 3 : Acal gu nodi:

1070									
1080	1081								
1090									
	2001								

Gulasira 4 : Sumiņ wî jîkala gi noņ de neņņer:

$$124 = 100 + 20 + 4$$

$$3691 = 3000 + 600 + 90 + 1$$

$$1273 = \dots + \dots + \dots + \dots$$

$$657 = \dots + \dots + \dots$$

$$15 = \dots + \dots$$

$$4705 = \dots + \dots + \dots + \dots$$

$$2528 = \dots + \dots + \dots + \dots$$

$$5019 = \dots + \dots + \dots + \dots$$

$$8006 = \dots + \dots + \dots + \dots$$

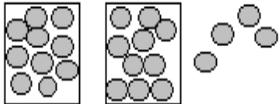
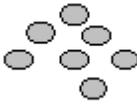
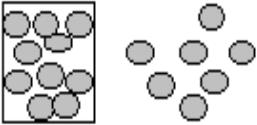
$$1540 = \dots + \dots + \dots + \dots$$

Giraye 15

Ndisisa gulusa mbo

Hawa ti ligematta kîs mo ûtuk-ûtuk kucuj ndîŋ toroke, hâgudu tîlo-tîlo koy ndîŋ toroke.

Tiro kîsta 2
ligematta 4
nda êreŋa,
hâgudu kaŋgi
noroke kar 7
tinnden, kîsko tu
cacij tondorona.

	$\begin{array}{r} (+10) \\ 24 \\ (-1) \end{array}$
	$\begin{array}{r} - \\ 7 \end{array}$
	$\begin{array}{r} \hline 17 \end{array}$

In ken tiro kîs 1
noŋ ligematta 7
nda êreŋa.

Gulasira 1 : Gim ninda wî noŋ de nintini:

$$\begin{array}{r} (+10) \\ 44 \\ (-1) \\ - \underline{19} \\ 25 \end{array}$$

$$\begin{array}{r} (+10) \\ 45 \\ (-1) \\ - \underline{18} \\ \dots 7 \end{array}$$

$$\begin{array}{r} (+10) \\ 62 \\ (-1) \\ - \underline{26} \\ \dots \dots \end{array}$$

Gulasira 2 : Nintini:

$$\begin{array}{r} 50 \\ - 25 \\ \hline 25 \end{array} \quad \begin{array}{r} 37 \\ - 19 \\ \hline \end{array} \quad \begin{array}{r} 47 \\ - 28 \\ \hline \end{array} \quad \begin{array}{r} 55 \\ - 18 \\ \hline \end{array} \quad \begin{array}{r} 54 \\ - 27 \\ \hline \end{array}$$

$$\begin{array}{r} 22 \\ - 6 \\ \hline \end{array} \quad \begin{array}{r} 52 \\ - 15 \\ \hline \end{array} \quad \begin{array}{r} 76 \\ - 48 \\ \hline \end{array} \quad \begin{array}{r} 84 \\ - 17 \\ \hline \end{array} \quad \begin{array}{r} 68 \\ - 29 \\ \hline \end{array}$$

$$\begin{array}{r} 145 \\ - 68 \\ \hline \end{array} \quad \begin{array}{r} 212 \\ - 145 \\ \hline \end{array} \quad \begin{array}{r} 246 \\ - 157 \\ \hline \end{array} \quad \begin{array}{r} 630 \\ - 162 \\ \hline \end{array} \quad \begin{array}{r} 426 \\ - 177 \\ \hline \end{array}$$

$$\begin{array}{r} 235 \\ - 54 \\ \hline \end{array} \quad \begin{array}{r} 670 \\ - 189 \\ \hline \end{array} \quad \begin{array}{r} 144 \\ - 48 \\ \hline \end{array} \quad \begin{array}{r} 608 \\ - 374 \\ \hline \end{array} \quad \begin{array}{r} 517 \\ - 98 \\ \hline \end{array}$$

$$\begin{array}{r} 262 \\ - 75 \\ \hline \end{array} \quad \begin{array}{r} 300 \\ - 143 \\ \hline \end{array} \quad \begin{array}{r} 613 \\ - 91 \\ \hline \end{array} \quad \begin{array}{r} 216 \\ - 169 \\ \hline \end{array} \quad \begin{array}{r} 421 \\ - 336 \\ \hline \end{array}$$

Giraye 16

Nintini:

1. Kaa tuu tîran fîlta koyonj chuwalta 45 ônoma. Ila molo chuwalta 16 ndîj orona. Inko fîlta îniñ chuwalta ñganna nda êreñonj?
2. Iyaña kodirta nige gi lo, kodirta 500 ron, 384 na wîwo ñeleñayen tucuña. Tiro nda nêreña wî ñganna yonj?
3. Kîte makatarko Anjimena lo Mûndu tîña. Wâri bûgañ mbara olona gi kîlonj 494 tene. Kîte ti kîlonj 258 târiña-kodo, tîrimbil ta tâñina. Hâgu tiro kîlonj ñganna nda êreñonj?
4. Hille tum kûjo ken, nereño undunjo innde. Jiciriya kaa 3 na nda enteyaka, kaa 187 îdirana. Jiciriya nda ena, kañgi gîlanj na gu kaa 49 nda ôlona, mbarlaña gu kaa 56 nda ôlona, kañgi kañgalanja gu kaa ñganna nda ôlononj?
5. Dûnga tîce 652 tene. Dâwway kar 385 ibiro tocha. Tîce nêreña ibiro ochnda wî ñganna yonj?

Giraye 17

Acalko nosinja

Mi rok geya mbo ndisisa mbo mosinja. Yagu maŋ njiŋanta yoŋ mâmunta yoŋ kaa nîŋa yoŋ naŋa yoŋ acal ginoy nindo genan, nîyembo tafak ndenin hâbutuu naci mbo nînji mbo gosinjeti. Hâgudu nêrenji koy gosti.

Masal:

Sene tu, mûcoo tur lo tîran kûcaŋ somko njiŋanta nû ena. Njiŋanta nîbi ti acal dîsir na gi ta kawo tena. Hâbutu yakunuŋ nûka gu, lêle noŋ gâyiriya taŋa noŋ nîŋa yoŋ naya yoŋ nduŋ-kodo, nêreŋa gu nintin kosiŋ tunduŋaye.

Lêle	Mâyirna wî	Naci (+)	Nînji (-)	Nêrenji (=)
1/1/2020	Koŋoma tanara	1200		1200
3/1/2020	Nditi tanara	1200		2400
5/1/2020	Labuse tanara	1200		3600
6/1/2020	Ilili tanara	1200		4800
8/1/2020	Njîkiya tanara	1200		6000
2/2/2020	Njiŋanta meneŋeŋa		5000	1000

Lêle 1 aye 1 sene 2020 Koŋoma njiŋanta 1200 tanara. Njiŋanta nîbi gi nintin acal mo gani naci nî gim tunduŋa, hâgudu gani nêreŋa wî nî gim koy tunduŋa. Lêle 3 aye 1 sene 2020 Nditi koy 1200 tanara, njiŋanta nîbi 1200 naya mbo 1200 nêreŋa mbo todorona, 2400 ûka gani nêreŋa wî nî gim tunduŋa. Hâkkoy lêle 5 aye 5 sene 2020 Lâbuse 1200 tanara, njiŋanta nîbi 1200 naya mbo 2400 nêreŋa mbo todorona, 3600 ûka gani

nêreŋa nîm tunduŋa. Inko ke-de, Ilili tanara mbo Njikiya tanara mbo acal mo katab ken tunduŋa. Lêle 2 aye 2 sene 2020 mûcoo kooy lo îdirana, njiŋanta nîbi gi mbo njiŋanta nîdirana wîwo kosiŋ 6000 ûka, 1000 gu sânduk mo le 5000 na wîwo inta 1000, 1000 teneneŋa, tendekere ente ta jam. In ken njiŋanta nîbi gi ti acal mo njiŋanta 6000 nêreŋa gi molo 5000 nîŋa wî ndis, 1000 nêreŋa ilu gani tam tunduŋa.

Gulasira:

1) Jâgalo wo aye naro koy gâyiriya tam njiŋanta 12000 ûnjiye. Lêle 10/2/2020 nar ûŋa. Lêle 11/2/2020 ilim ŋûgi taŋa 3000 ndîŋar, kaya nîŋa 2000 ndîŋar, hâgudu sukkar taŋa 1200 tîndiŋara. Hâgudu 18/2/2020 ilim jîne taŋa mbo kitabta nîŋa mbo 2800 tîndiŋara. Kallo ndeteŋa-kodo acal dîsir na gim nduŋ.

Lêle	Âyirna wî	Naci (+)	Nînji (-)	Nêrenji (=)

2) Dalma sene tu kârifi tûka fîlta koyon, chuwalta 17 tônoma, 11/11/2020 ilim tîrimbilko nucun tojo tanara. 15/11/2020 ilim chuwalta 2 ndîŋ n̄amu tîndinjimana. 20/11/2020 ilim du chuwalta 6 ndîŋ ron kimiŋwo binije îndiye taŋ nda tena. Hâgudu 24/11/2020 ilim du chuwalko tîlo cacij tîsi mbo jîre mbo baka-baka teneŋeŋa. Kallo ndeteŋa-kodo acal dîsir na gim nduŋ.

Lêle	Âyirna wî	Naci (+)	Nînji (-)	Nêrenji (=)

Hâgu acalko geya gi mosiŋa! Maŋ ba jiya-ken, gâyirin njiŋanta mbûnjjiyon, sûg mo gâyirigiyon, âsur koyon fîlta mbo asee mbo nôm nara yan koy, hâbutu yakunuŋ acal to fandaŋko genan nda ûrgurtariteyande, kallo de gâyiriteye. In ken acal gi nîyembo ndaŋ-ndaŋte.

Hâbutu yakunuŋ acal gi ta kawo but-but a genteye, acal tîlem rûgurtan genteyande. Kitab 2 ilim de acal hâbutuu but-but na gani tîlem undunji gu mosiŋki.