

KALAN MINISIRISO

MALI JAMANA

Fasojama kelen - Kuntilenna kelen

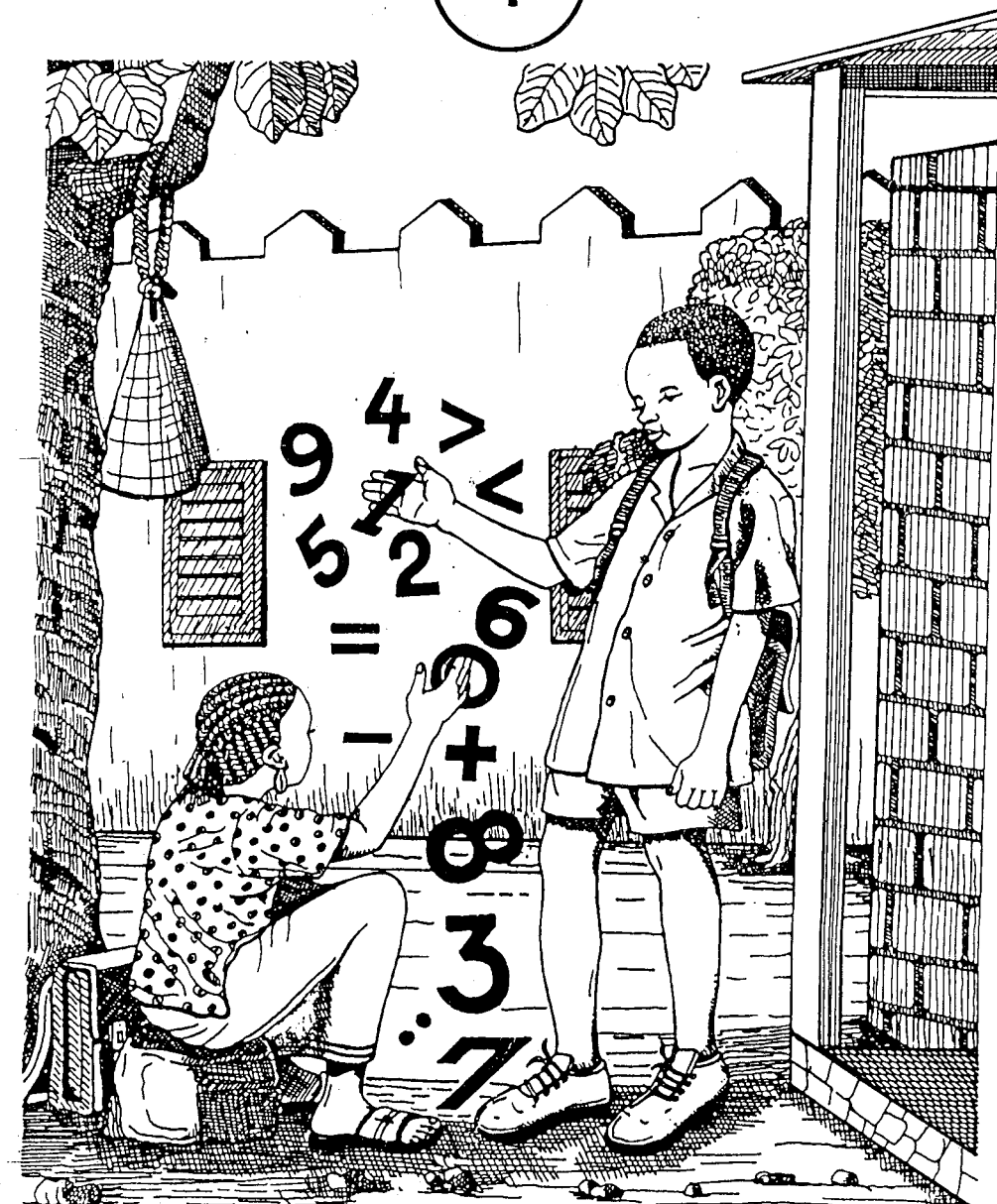
Ŋaniya kelen

Kalan neɓiniɓi ɓemogɔso

Balikukalan ɓemogɔso

JATEKALAN

1



Bamako, 2000

Gafe kɔ̀nɔ̀kɔ̀w

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Ɔɛbila

Gafe in sɛbenna lakolikaramogojekulu kerɛnkerɛnnen ka baara senfe Ɔɔɔ, Segu mara la, k'a ta Utikato tile 3 la, ka t'a bila a tile 24 na, san 2000. Jɛkulu in mogow bora kalan Minisiriso bolofara caman na.

Baara in kera kalan taabolo kura hukumu de kɔɔ, n'o bɛ wele tubabukan na « Pédagogie convergente ». O ye kalankɛfɛɛɛ ye, min sinsinbere ye fasokan ni walikan taako numan ye ɔɔɔn fe kalan ni degeli hukumu kɔɔ.

Gafe in kuntilenna ye ka denmisenw dege jatekalan na. Jatekalan degeli senfe sigida n'a lamini kow kan, kɔɔsiliw ni hakilijagabobaaraw bɛ kɛ sababu ye k'u hakili dayɛɛ, k'u lafaamuya.

An ka foli kerɛnkerɛnnen bɛ ka taa « USAID » ma, a ka demɛ kɔɔɔn nin baara siratige la.

Ɔefoli

Gafe min b'aw bolo nin ye, karamogo ni kalanden ka gafe don, somogow fana be se ka denw deme n'a ye so.

Gafe in sinsinnen be Mali jatekalan baara jateminenew kan. A be tali ke fana « Konfemni » jategafe kan.

A tilalen don yoro kunba naani ye :

Yoro folo : jatekalan nebilabaaraw

Yoro filanan : daw, kafoli, dɔboli

Yoro sabanan : Kenesumakalan ani sigiyorodanfara

Yoro naaninan : sumani

Yoro kelen o kelen tilalen don kalansen damado ye.

Baaraw be ke ni negenw, tiiriw ani new ye kalansenw kono. Karamogo ni kalandenw ka kan k'o baaraw laben walanba kan walima kayew kono.

Jatekalan baaraw sigilen be taabolo saba kan :

1- Waleyali : kalandenw yere b'u bolo don minenw na ka baara kofolenw ke n'olu ye .

2- Tiginadilan : baara kofolenw negenw be ke.

3- Kunnabisikili : ka baara ke ni taamasiyen dilenw ye ka jaabiw soro.

Kalansen kelen o kelen temesira file :

1. Kuntilenna

2. Baarakeminenw : olu ka kan ka ke minenw ye minnu be soro sigida la ani minnu be tali ke denmisenw ka tulongefenw na.

3. Taasira : baara ketaw pereperelatigelen b'o kono walasa ka kuntilennaw tiime.

Karamogo ka kan k'u sigi-sigicogo n'u taasira bato.

Baara ninu fanba ka kan ka ke denmisenw fe.

Sinsin ka kan ka ke kalankesere min kan, o ye kulubaara ye.

4. Degeliw : Kalansen bee labannen don ni degeliw ye, minnu be se ka ke kalanso kono walima so.

Kolosi : 1. Jate kalansen bee ka kan ka damine ni kunnajate walima jate teliman ye.

2. Baara keta be se ka ke farikolon senfe.

Baara kebagaw

Sebenbagaw:

1 Mariyamu	Gindo	Dumanzana "C", Bamako
2 Adama	Tarawele	Banankoronin, Segu
3 Burehima	Fofana	Kalan nepinini nemogoso, Bko
4. Muntaga	Jara	Balikukalan nemogoso, Bko
5 Lamini	Danbele	Kalan nepinini nemogoso, Bko
6 Sidi	Jabate	Banzana, Kayi
7 Mariyamu	Tarawele	Balikukalan nemogoso, Bko
8 Koninba	Danbele	Kalan nepinini nemogoso, Bko
9 Mamadi	Kamara	Kalan nepinini nemogoso, Bko
10 Mamadu	Konta	Kati
11 Mamadu	Jakate	Kalan nepinini nemogoso, Bko
12 Amara	Sise	Bko Faaba kalanko nemogoso
13 Mahamadu	Jakite	Darisalamu, Bamako IV
14 Musa	Sise	Bolibana A, Bamako
15 Seku	Sidibe	Kalabankura
16 Mamadu L.	Tarawele	Mara kalanko nemogoso, Kkoro
17 Sanusi	Songomo	Mara kalanko nemogoso, Segu
18 Oroberi	Sise	Ncila, Kulukoro
19 Baba	Jakite	Kalan nepinini nemogoso, Bko
20 Bakari	Keyita	Kalabankura
21 Umu	Jara	Balikukalan nemogoso, Bko
22 Yala	Jara	Balikukalan nemogoso, Bko

23 Koninba	Sanogo	Jikarɔnin "C", Bamako
24 Cemoko	Kone	Sogobugu, Sikaso
25 Musa T.	Tarawele	Same, Kayi
26 Mukutari	Keyita	Kati JPK IV

Jadilannaw:

1 Seyidu	Togola	Kalan neɲinini neɲogoso, Bko
2 Sayibu D	Sise	Mara kalanko neɲogoso, Kkoro
3 Sekina	Kante	Kalan neɲinini neɲogoso, Bko
4 Abudulayi	Keyita	Kalan neɲinini neɲogoso, Bko
5 Felikisi	Jopu	Ɓonon
6 Baba	Kasoge	Ɓonon
7 Bubakari Ali	Mayiga	Kolokani
8. Jakabu	Gindo	Kenyereye baarakela.
9. Abudala	Kulibali	Kalan neɲinini neɲogoso, Bko

Mansinnasebennikela:

Jingareyi	Mayiga	Kalan neɲinini neɲogoso, Bamako
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Jate teliman

Ɓefoli : baara in be ke karamogo ni kalandenw fe, daw bee kalansenw damine na.

Jate teliman ye daw bee kalansenw nebilabaaraw de ye. O siratige la, misali dow file karamogo ka kan ka tomɔni ke minnu na.

1. danni :	Karamogo	Kalandenw
kelen-kelendanni	→ 1, 2, 3	→ 4, 5, 6, 7, ...
fila-filadanni	→ 2, 4, 6	→ 8, 10, 12, 14, ..
duuru - duurdanni	→ 5, 10, 15	→ 20, 25, 30, ...
woro-woro danni ka yelen	→ 0, 6, 12	→ 18, 24, 30,
saba-saba danni ka jigina	→ 29, 26, 23	→ 20, 17, 14, ...

2. Jatedensow danni :

23	→	bi 2 ni ke 3 ye
67	→	bi 6 ni ke 7 ye



3. Daw soroli :

bi 5 ni ke 4 ye 54 ye
bi 10 ni ke 0 ye 100 ye

4. Daw sebenni :

bi 7 ni ke 3 ye 73 ye
bi 3 ni ke 5 ye bi saba ni duuru ye

5. Kafoli katimu :

+	0	1	2	3
0	0	1	2	3
1	1	2	3	4
2	2	3	4	5
3	3	4	5	6

+	5	2	8
5	10	7	13
2	7	4	10
8	13	10	16

* Kolosiliw :

1. katimu kono misali daw file minnu be fu nafantanya jira
yan :

$$0 + 1 = 1 + 0 = 1$$

$$0 + 2 = 2 + 0 = 2$$

2. Katimu kono misali daw file minnu b'a jira ko daw sigiyoro
be se ka falen kafoli la nka sorolen te yelama :

$$2 + 3 = 3 + 2 = 5$$

$$1 + 2 = 2 + 1 = 3$$

6. Kafoli ni dabolli waleyali (olu be se ka ke jatepiniw kono.)

$$\text{Misaliw : } 23 + 11 + 7 = 23 + 7 + 11 = 30 + 11 = 41$$

$$5 + 2 + 8 + 15 = (5 + 15) + (2 + 8) = 20 + 10 = 30$$

$$11 - 9 = 2 + 9 - 9 = 2 + 0 = 2$$

$$49 - 12 = (49 + 1) - (12 + 1) = 50 - 13 = 37$$

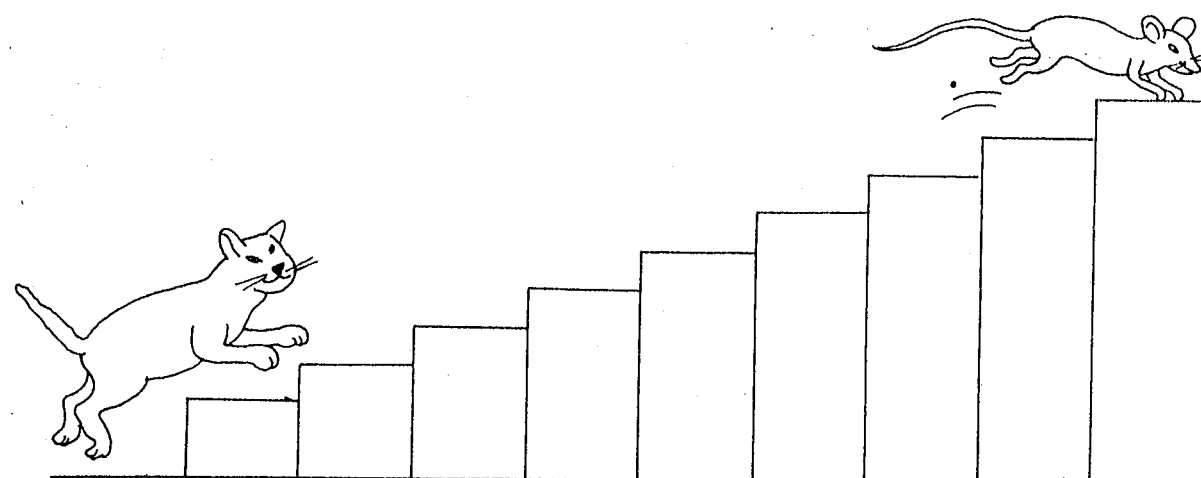
$$32 - 24 = (32 + 6) - (24 + 6) = 38 - 30 = 8$$

Kolosili : Kuntilenna folen ninnu ka kan ka tiime teliya la
kalansen bee damine na, sanga 10 kuntaala kono. U be
geleya ka taa doonin-doonin.

U geleyali sirilen be daw cayali la.

Baara keta in ka kan ka sinsin kalandenw ka se hake sorolen
kan.

An balima karamogow, an b'a jini aw fe, gafe in kalannen ko
ka baara ke n'a ye , aw k'an ladonniya a' ka kolosiliw la.
Ala k'a ke an nafalan ye !



Yoro folo
**Jatekalan
nebilabaaraw**

Nidungɔwolomani ni nidungɔsaradali

I.Kuntilenna : kalansen laban na kalanden ka kan ka se :

- Ka wolomani ke a dungo la
- Ka saradali ke a dungo la.

II.Baarakeminɛnw : belekisew, jirifuraw, kalaninw, sikolow,...

III.Taasira

Baara keta 1:

- Karamogo be kalandenw labo u ka taa belekisew, jirifuraw, kalaninw, sikolow n'u jogonnaw jini ka na.

Baara keta 2 :

Kalandenw b'u ka minen jininew da u ka tabaliw sanfe Minnu sigilen be tabali kelen kan, olu b'u ka minenw laje kopuman ka tila k'u woloma u sago la.

Baara keta 3 :

Karamogo b'a jini kalandenw fe u ka minen ninnu ke saraw ye, u sago la.

A b'a jini kulu damado fe u k'u ka wale kelenw jefo.

Baara keta 4 :

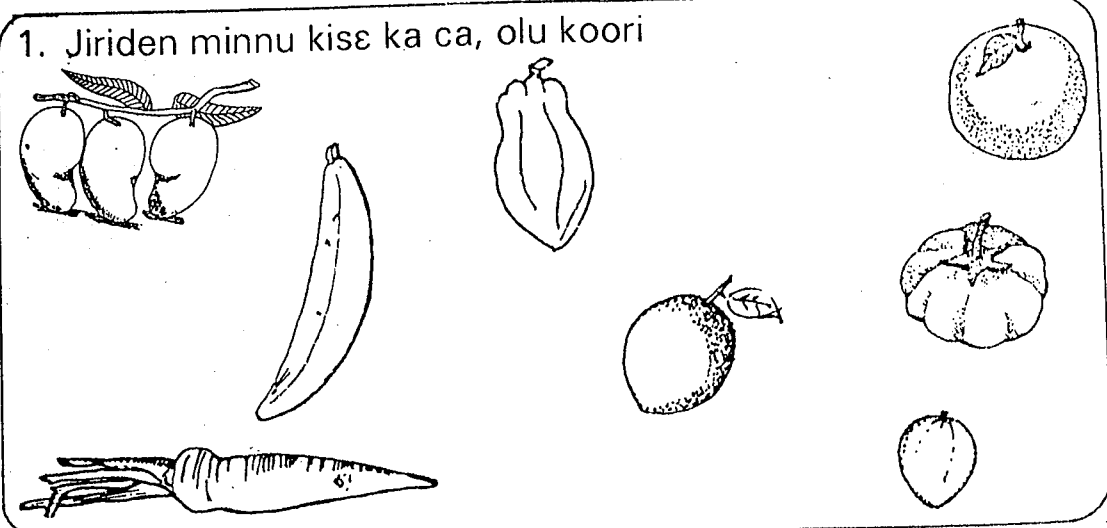
Karamogo be kalandenw bila u k'u ka fen wolomanenw ke u dan ma minenw koro, k'u sigi kalanso seleke do la.

Marata

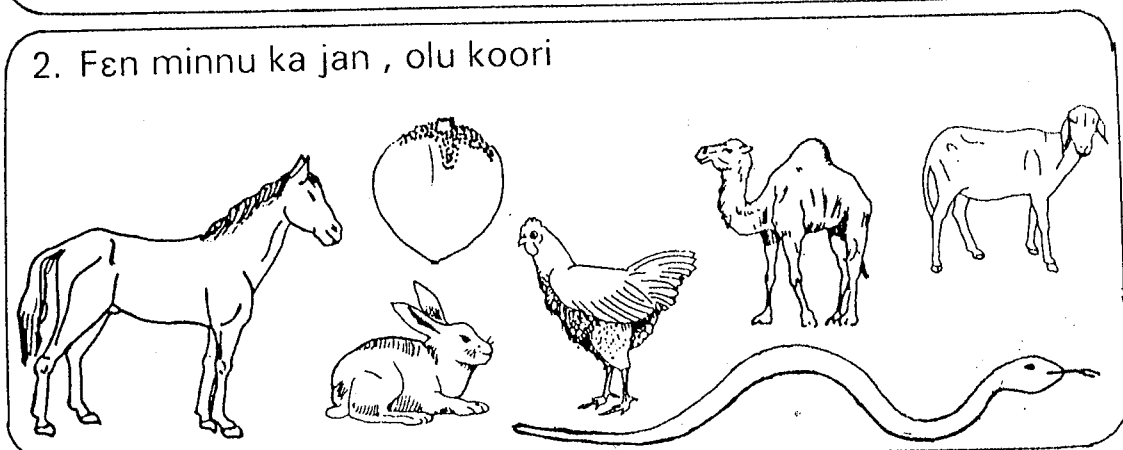
*Wolomani ye fen suguya kelenw latomoni ye ka bo tow la
Saradali koro ye ka fenkulu fenw sigi kulu ni kulu.*

Degeliw

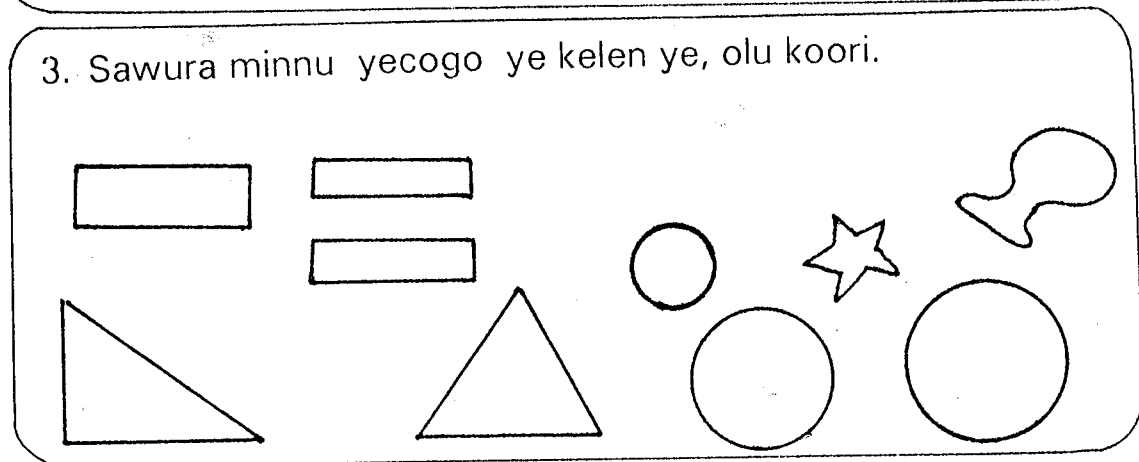
1. Jiriden minnu kise ka ca, olu koori



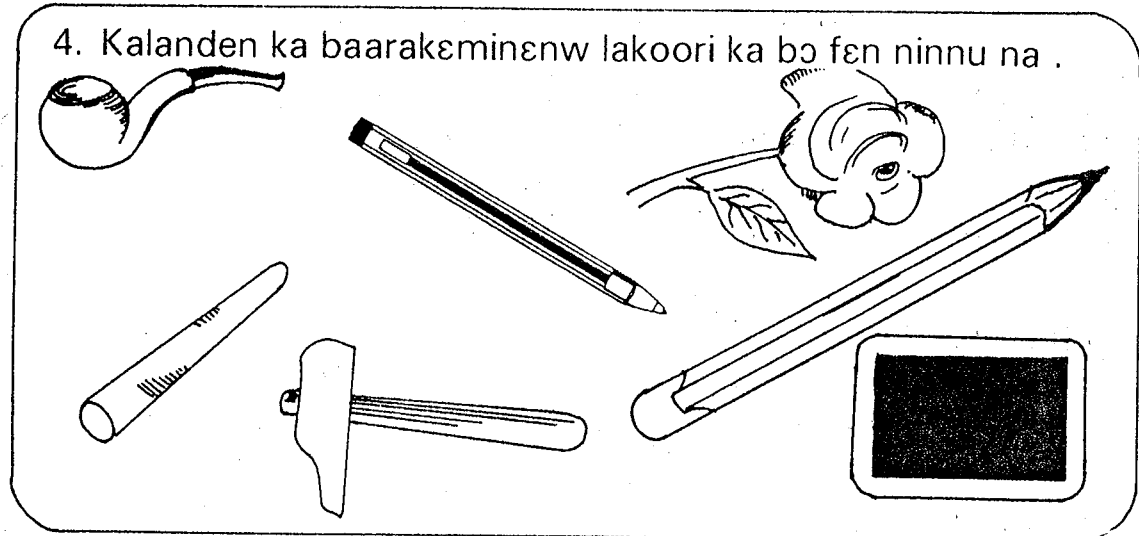
2. Fen minnu ka jan , olu koori



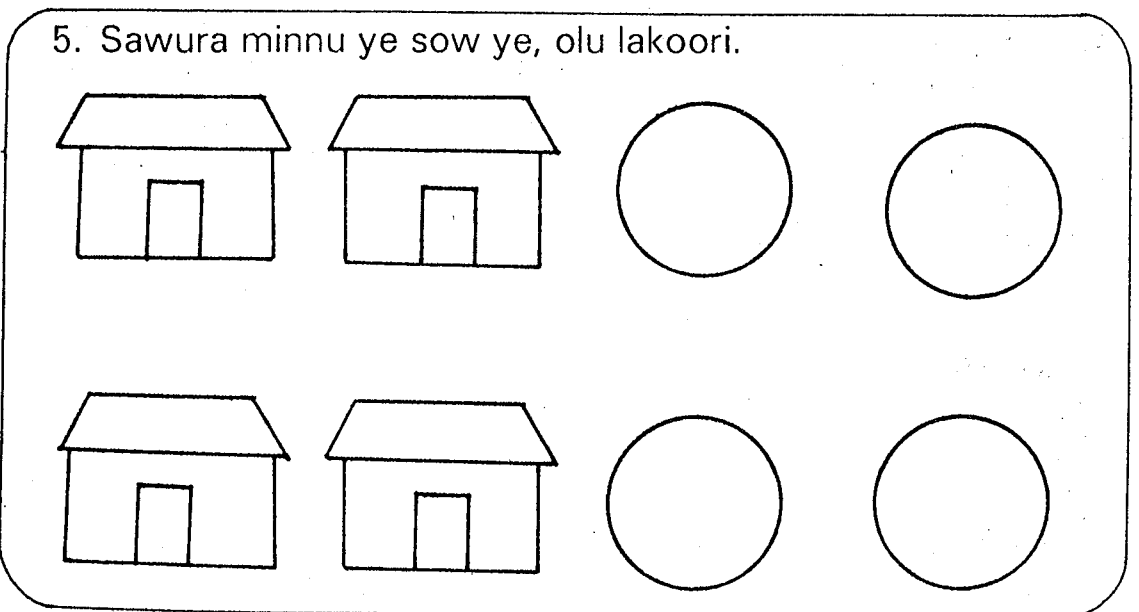
3. Sawura minnu yecogo ye kelen ye, olu koori.



4. Kalanden ka baarakeminenw lakoori ka bo fen ninnu na .



5. Sawura minnu ye sow ye, olu lakoori.



Wolomani ka da suguya kan

I. Kuntilenna : kalansen laban na kalanden ka kan ka se :

- ka baarakeminenw suguya don, k'u togow fo.
- Ka wolomani ke ka da fenw suguyaw kan.

II. Baarakeminenw :

- Karamogo taw ni kalandenw taw ,sigida jiridenw, buwatiw,
- kalaninw, sikolo, belekisew, manamafen, o n'o jogonaw.

III. Taasira :

Baara keta 1 :

- Kalandenw be baarakeminenw ta k'u laje, k'u sidon.

Baara keta 2 :

- Kalandenw be minen dow ta k'u jira, k'u togow fo.

Baara keta 3 :

- Karamogo be minen dow ta minnu ma jira folo. Kalandenw b'u togow fo.

Baara keta 4 :

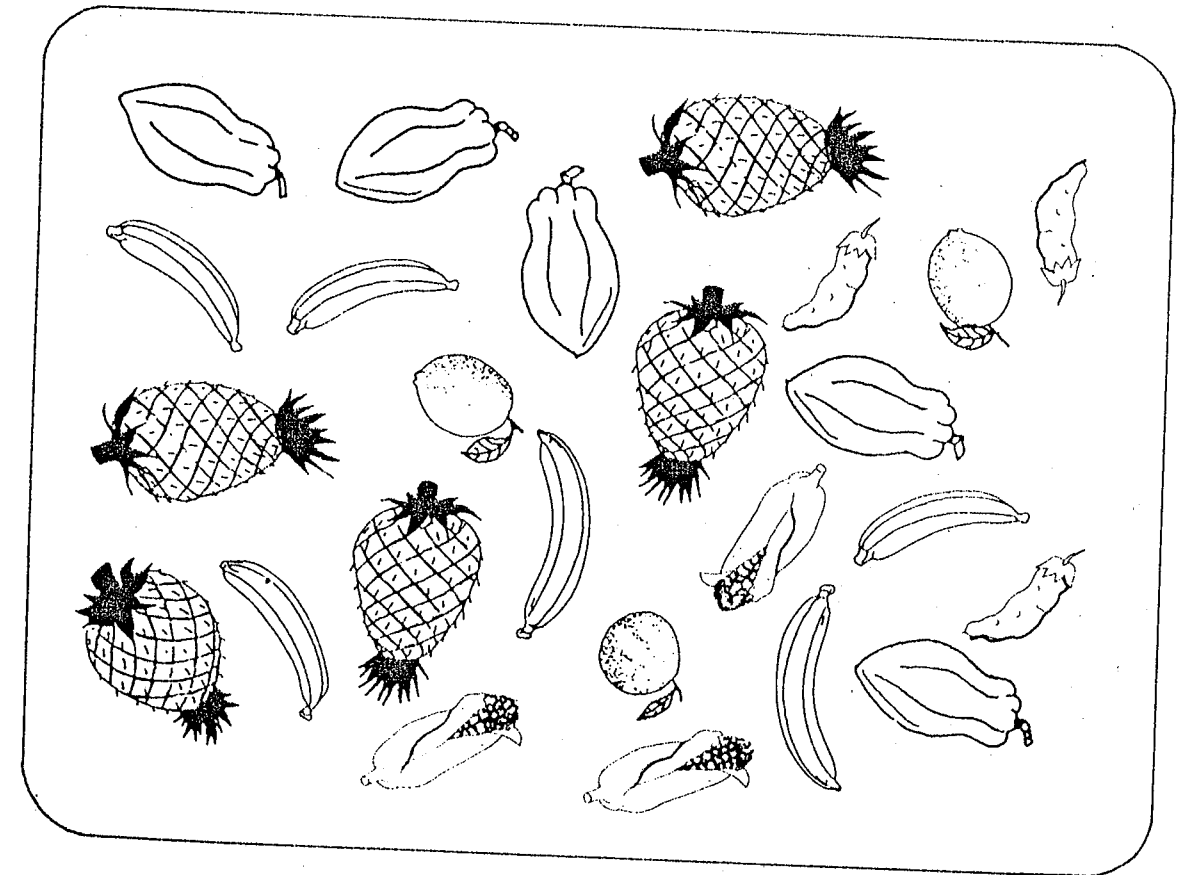
- Kalandenw be fenw jira u ni jogon ce, k'u togow fo ka da suguya kan.

Baara keta 5 :

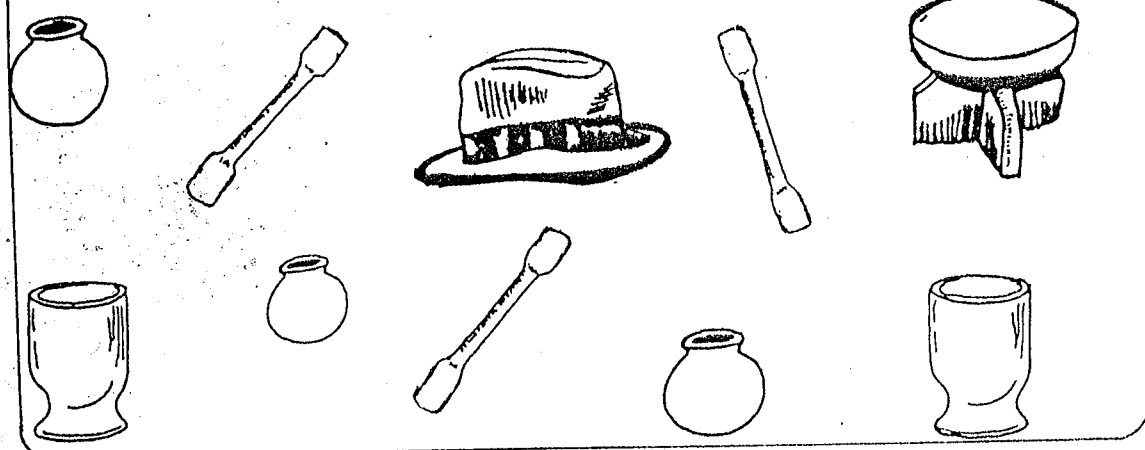
Karamogo ni kalandenw be je ka sawuraw tige ka da u suguya kan, k'u togow fo : kere saba, tangili, kare, koori

Degeliw

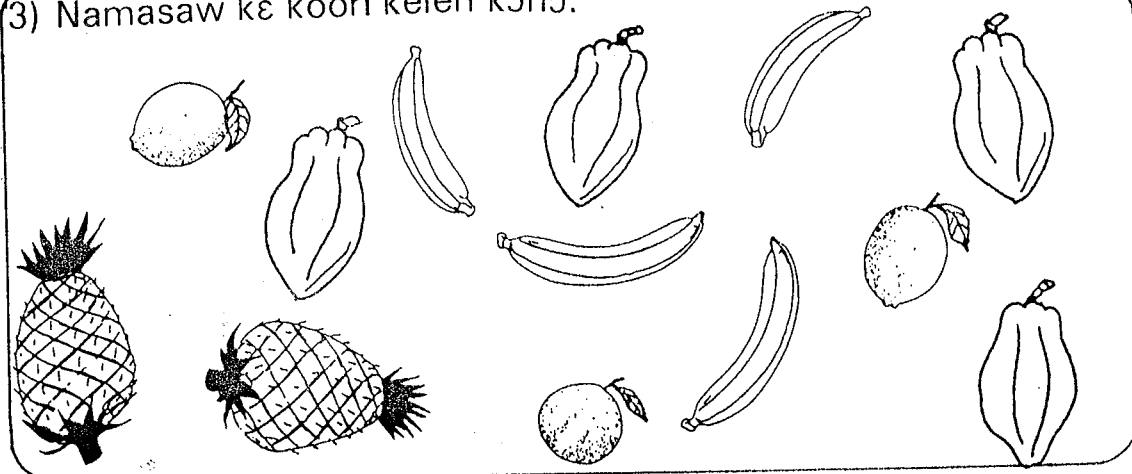
1) Fen suguya kelen woloma ka bo tow la.



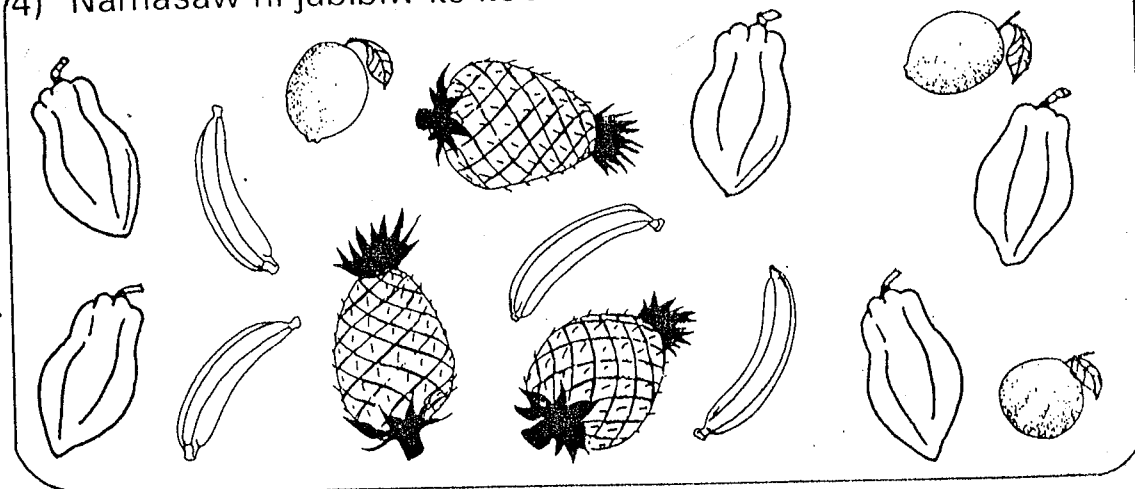
2) Kolonkalaw lakoori



3) Namasaw ke koori kelen kono.



4) Namasaw ni jabibiw ke koori kelen kono.



Wolomani ka da cogoya, kundama ani je kan.

I. Kuntilenna : Kalansen laban na, kalanden ka kan ka se :

- Ka fenw je don, k'u togo fo ;
- Ka fenw cogoya don ;
- Ka fenw kundama don ;
- Ka wolomani ke u je, cogoya ani kundama fe.

II. Baarakeminenw :

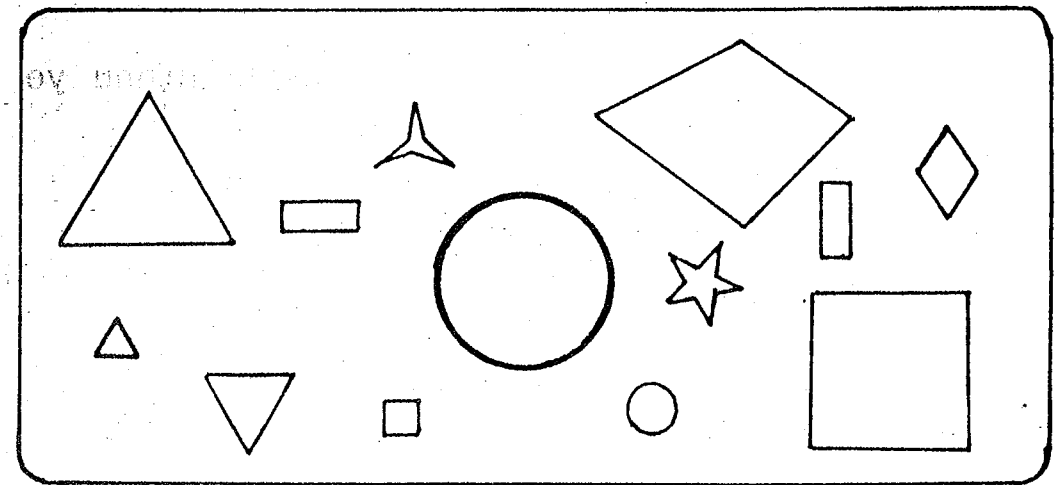
Kariton, kemesu, lamu, sebenfura jeman, kiriyon gansan ni kiriyon jemaw, josilan.

Karamogo be na ni kare, tangili, keresaba ani koori belebele dilannenw ye kariton na, kalandenw b'u fitininw dilan sebenfura la.

III. Taasira :

Baara keta 1 :

- Karamogo be a ka sawura dilannenw jira kalandenw na, k'u togo fo ;



- A b'u pininka u cogoyaw la.
- A b'a pini kalandenw fe u ka sawura ninnu jagon dilan sebenfura la, ka new k'u la.

- A b'a ka sawura dilannenw ni kalandenw taw jagami k'u ton tabali kan.

Baara keta 2 :

- Karamogo be kalandenw tila kulu naani ye. Kulu kelen-kelen bee be na sawura ninnu kelen woloma ka bo sawura tow la ka da a ne kan.

Baara keta 3 :

- Karamogo be kalandenw bila kelen-kelen ka na sawura dilannen fila ta, k'u cogoya fo.

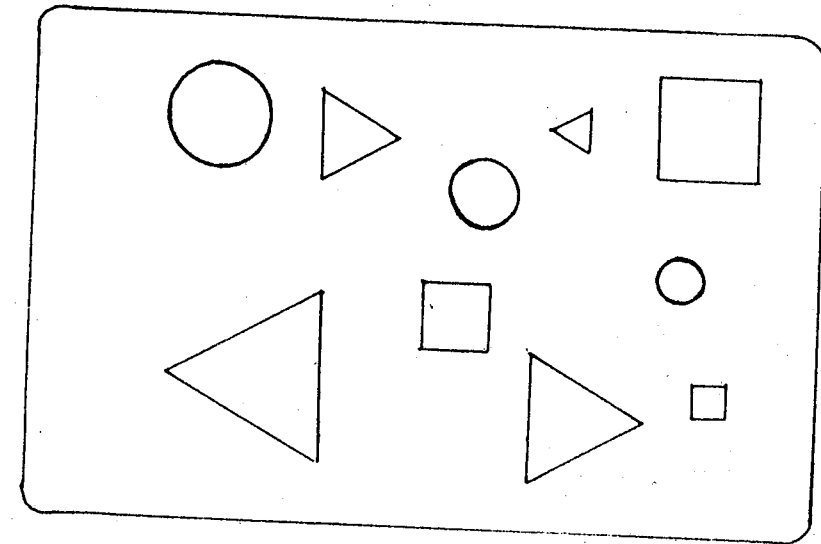
Baara keta 4: Kalandenw be sawura werew ta minnu ye suguya kelen ye k'u kundama fo.

Baara keta 5 :

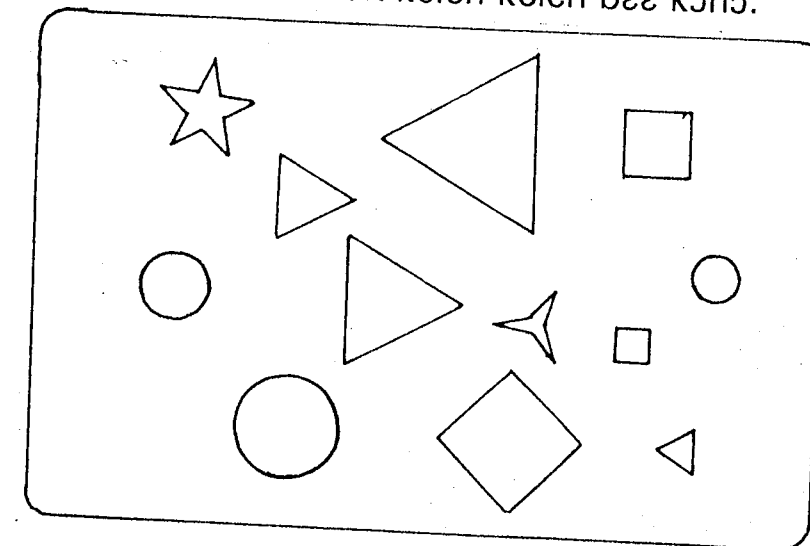
- Karamogo b'a pini kuluw kelen-kelelenna bee fe u ka na u ka sawura dilannen do ta k'o ne cogoya fo.

Degeliw :

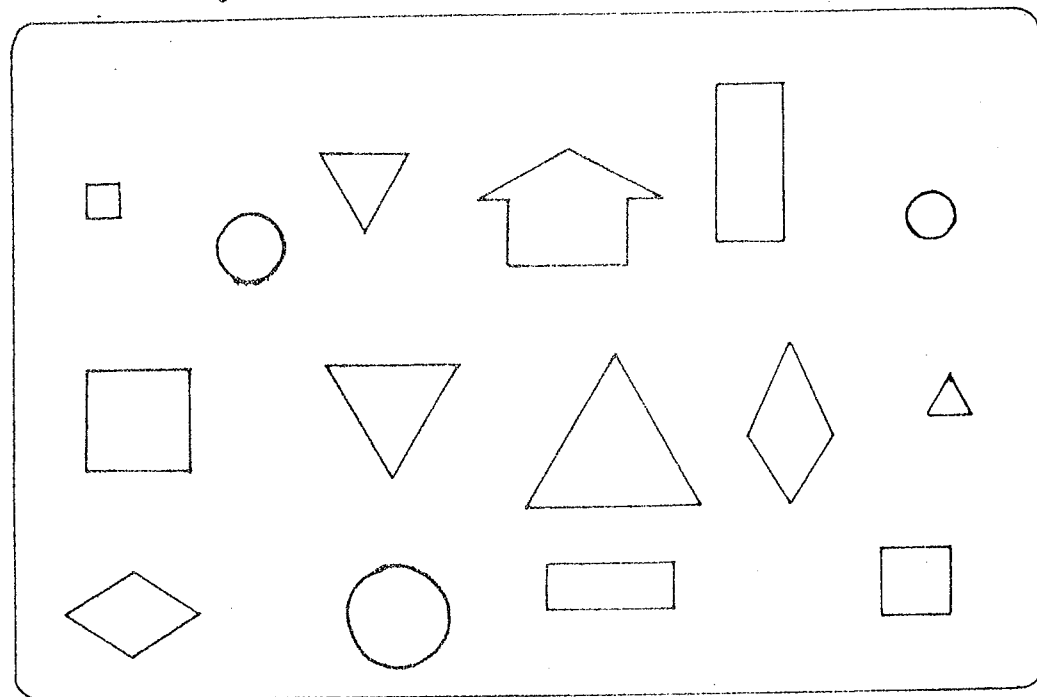
1. Nin taamasiyen (+) ke keresaba kelen-kelen bee kono :



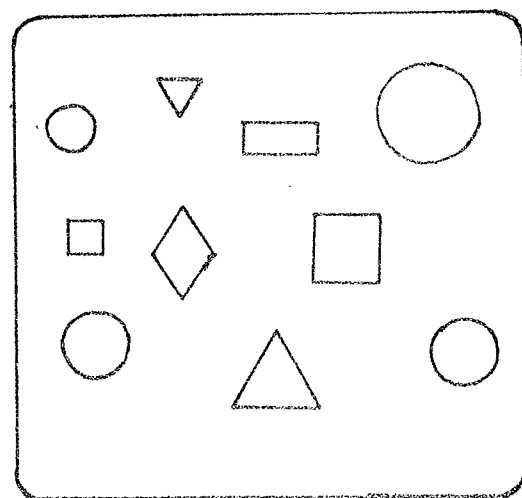
2. Nin taamasiyen (-) ke koori kelen-kelen bee konon.



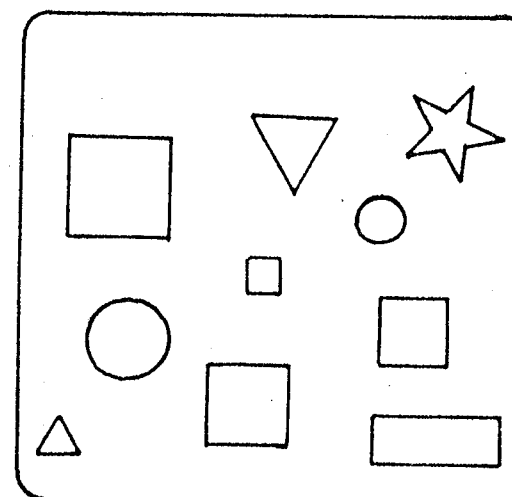
3. Nin taamasiyen (x) ke kare kelen-kelen bɛɛ kɔnɔ.



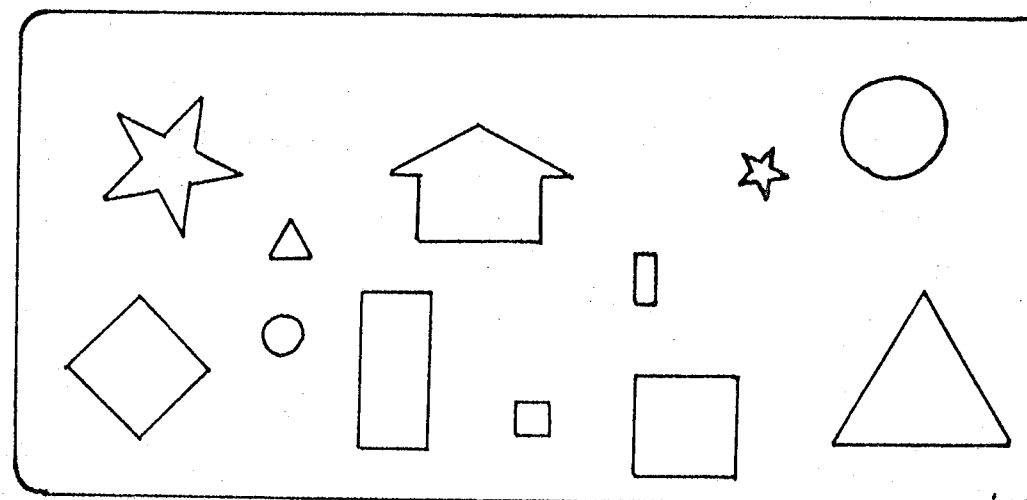
4. Koori ninnu bolo di jɔgɔn ma ni tiiriw ye



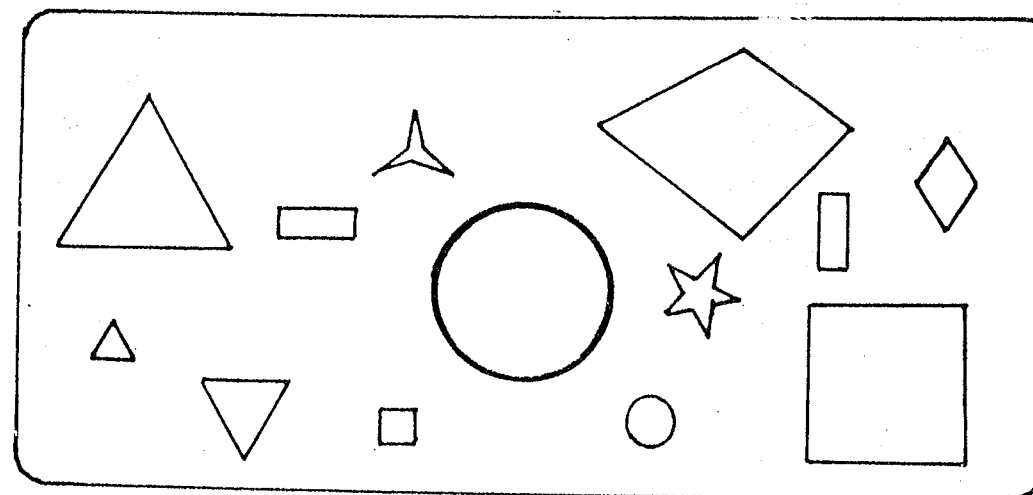
5. Karew bɛɛ koori,



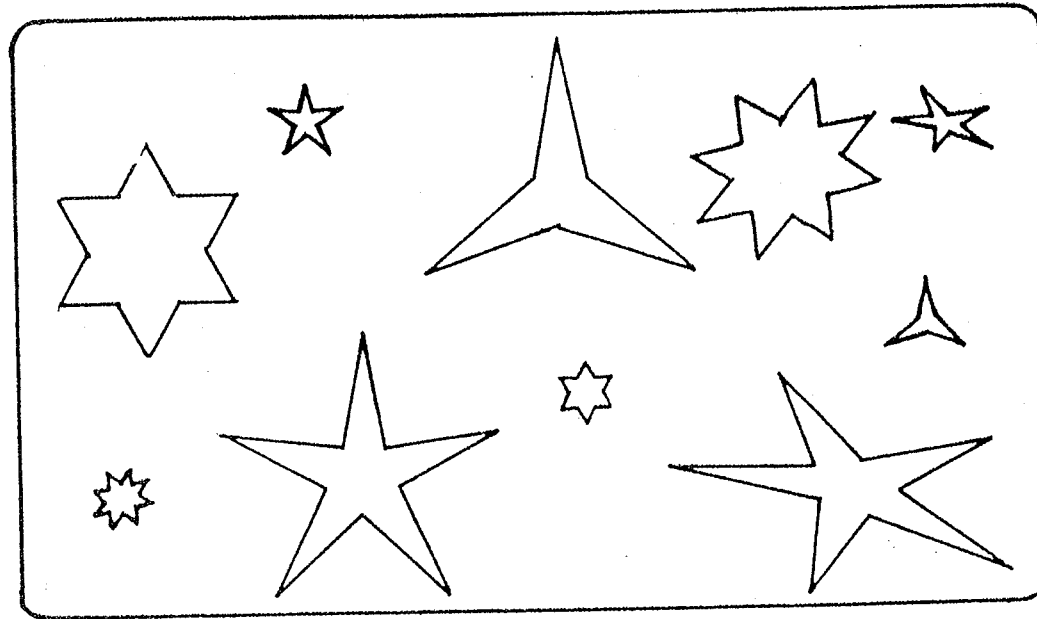
6. Nin taamasiyen in (+) ke sawura fitininw kan.



7. Nin taamasiyen in (x) ke sawura kunbabaw kɔnɔ.



8. Sawura fitininw bolo di ɲogɔn ma ni tiiriw ye.



9. Kalanden kelen- kelen bɛɛ bɛ sawura naani dilan ka ɲɛ fɔlen ninnu k' u la : bilenman, nɛrɛmuguma, bulama, ɲugujima.

Janto : Nin kalansen in bɛ daminɛ kabini farikolon waati, nin cogo in na :

- Karamɔɔ bɛ karew, kooriw, tangiliw ani kɛrɛsabaw ci duguma ka denmisɛnw jɔ o sawuraw kɔnɔ, bɛɛ n'a ka dununkan : (kare ta ye mankanba kelen ye, koori ta ye mankan hakɛlama kelen ye, tangili ta ye mankanba fila ye, kɛrɛsaba ta ye mankan sumanen kelen ye.
- Denmisɛnw bɛ bɔ sawuraw kɔnɔ, k' u lamini. Ni minnu ka dununkan bɔra olu bɛ don u ka sawura kɔnɔ.
- Ni minnu filila, karamɔɔ b'olu bilasira.

Wolomani ka da mankutu fila kan.

I.Kuntilenna : kalansen laban na, kalanden ka kan ka se :

- Ka wolomani kɛ ka da mankutu fila kan : cogoya ni ɲɛ, walima cogoya ni kundama walima kundama ni ɲɛ.

II.Baarakɛminɛnw :

1. Karamɔɔ taw : kare, tangili, kɛrɛsaba, koori (olu bɛ kɛ kunbabaw ye)
2. Kalanden taw : kare, tangili ; kɛrɛsaba, koori, (olu bɛ kɛ misɛnmanw ye), bɔnbɔn, lenburu, farasuw, tigakɔɔ, sikɔɔ...

Taasira :

Baara kɛta 1

- Kulu bɛɛ ka baarakɛminɛn bɛ d' u ma.
- Karamɔɔ bɛ kalandenw bila ka fɛnw tɔɔɔw n' u ɲɛw an' u kundamaw fɔ.
- N' u desera, a b' u bilasira.

Baara kɛta 2

- Karamɔɔ b' a ɲini kalandenw fɛ u ka fɛn ɲɛ bilenmanw fara ɲogɔn kan
- O kɔfɛ, ɲɛ jɛmanw, ɲɛ binkɛnɛmaw ani ɲɛ wɛrɛw bɛ se ka woloma o cogo la.

Baara kɛta 3.

- Fɛnw bɛ ɲagami tuma bɛɛ ka sɔrɔ ka wolomani kɛ
- Kalandenw bɛ fɛnw woloma ka da u cogoyaw n' u ɲɛw kan.
- Kalandenw bɛ fɛnw woloma ka da u cogoyaw ni kundamaw kan.
- Kalandenw bɛ fɛnw woloma ka da u kundamaw ni ɲɛw kan.

Baara kɛta 4.

- Halibi fɛn wɛrɛw bɛ ɲagami ka tila k' u woloma ka da mankutu fila wɛrɛw kan .

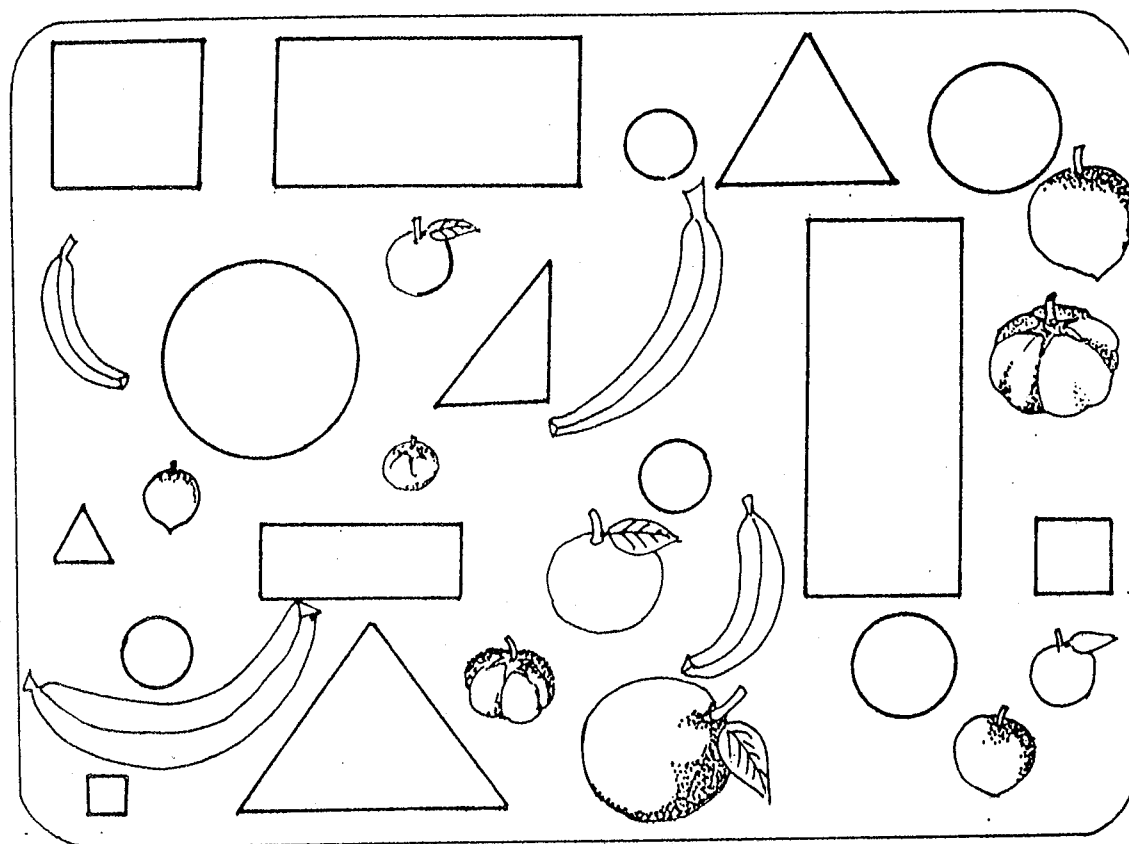
Degeliw :

(a be se ka ke kulubaara ye walima kalanden kelen-kelen be se k'a ke a yere ye)

- Karamogo be jegen caman ke sebenfura do kan walima walanba kan,ka je k'u la.

Kolosili : karew la fila be ke juguji ye.

- Kalandenw be jegen ninnu ta u ka kayew kono o cogoya kelen na.



1. Nin taamasiyen (+) ke tangili kunbabaw kan.
2. Kare jugujimaw lakoori
3. Tiiri ci keresaba misenmanw kan
4. Nin taamasiyen (-) ke koori mankanw kono.
5. Jegen kunbabaw bolo di jagon ma.

Saradali

I.Kuntilenna : Kalansen laban na kalanden ka kan ka se ka minenw sarada ka da kunnafoni dilen kan.

II.Baarakeminenw :

1.Karamogo taw : - Karew, tangiliw, keresabaw, kooriw tigelen sebenfura la, ka dow kunbaya ni dow ye, ka dow je ke bilenman,finman, nerenuguma walima bulama ye.

Nin minenw ka kan ka bonya ni kalandenw taw ye.

2.Kalandenw taw :

-Kolonkisew, belakisew, farasuw, jiridenkolow, jiribuluw, kalaninw,.....

-Karew, tangiliw, keresabaw, kooriw tigelen sebenfura la, ka dow kunbaya ni dow ye, ka dow je ke bilenman, finman, nerenuguma walima bulama ye.

III.Taasira :

Baara keta 1

-U ka sawura dilannenw na kalandenw be bila ka sawura suguya kelenw sarada u ni dungo la.

Baara keta 2

Sawura minnu cogoya ye kelen ye, kalandenw be olu sugandi ka bo tow la. K'u bila u dan ma (o ka kan ka ben kulu naani ma).

Baara keta 3

Sawura minnu je ye kelen ye, kalandenw be bila ka olu sugandi ka bo tow la, k'u bila u dan ma (o be ben kulu naani ma).

Baara be ke ni karamogo ka minenw ye folo, k'a laban ni kalandenw taw ye kulubaara kono.

Baara keta : 4

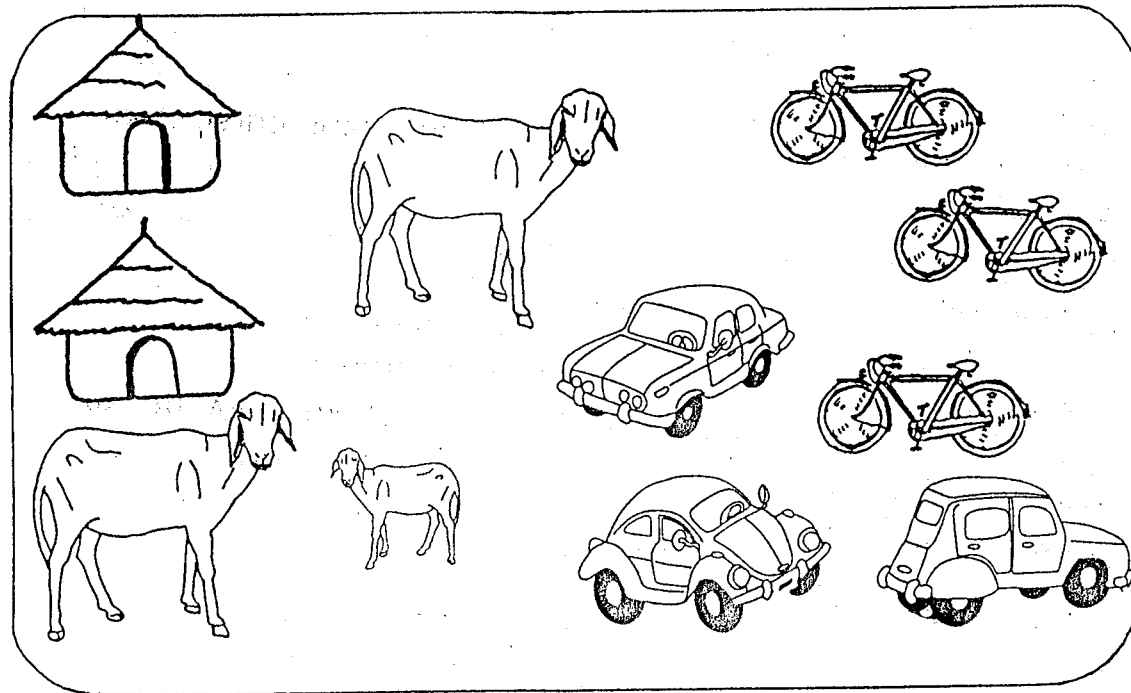
Kalandenw be bila ka saradali ke ka da mankutu werew kan.

Degeliw

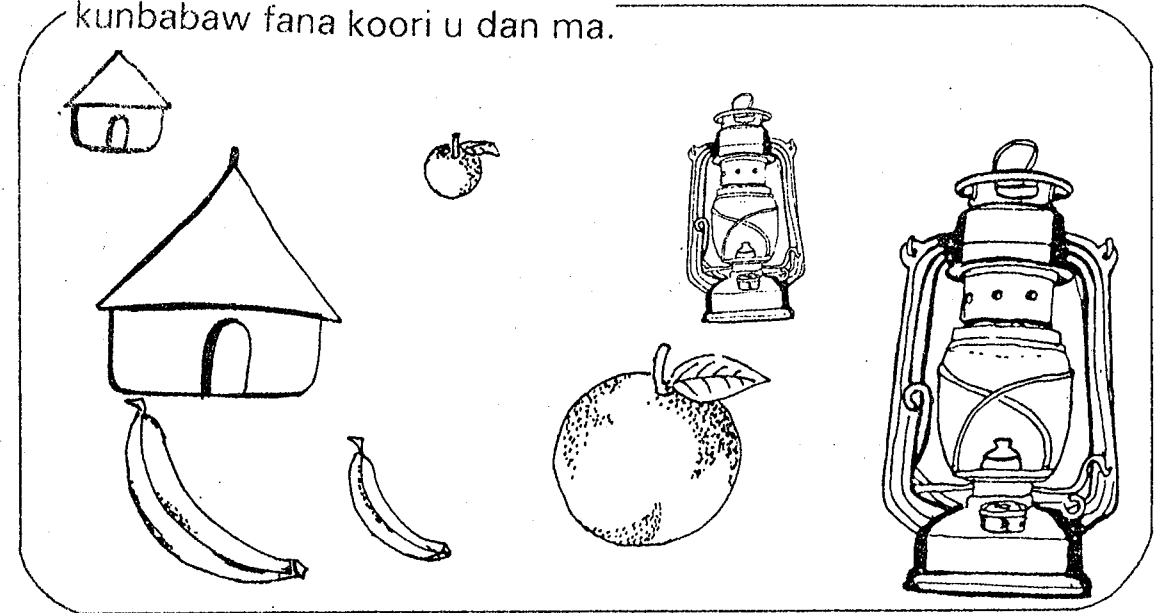
1. Fen minnu kundama ka jan , olu koori ; tow fana koori.



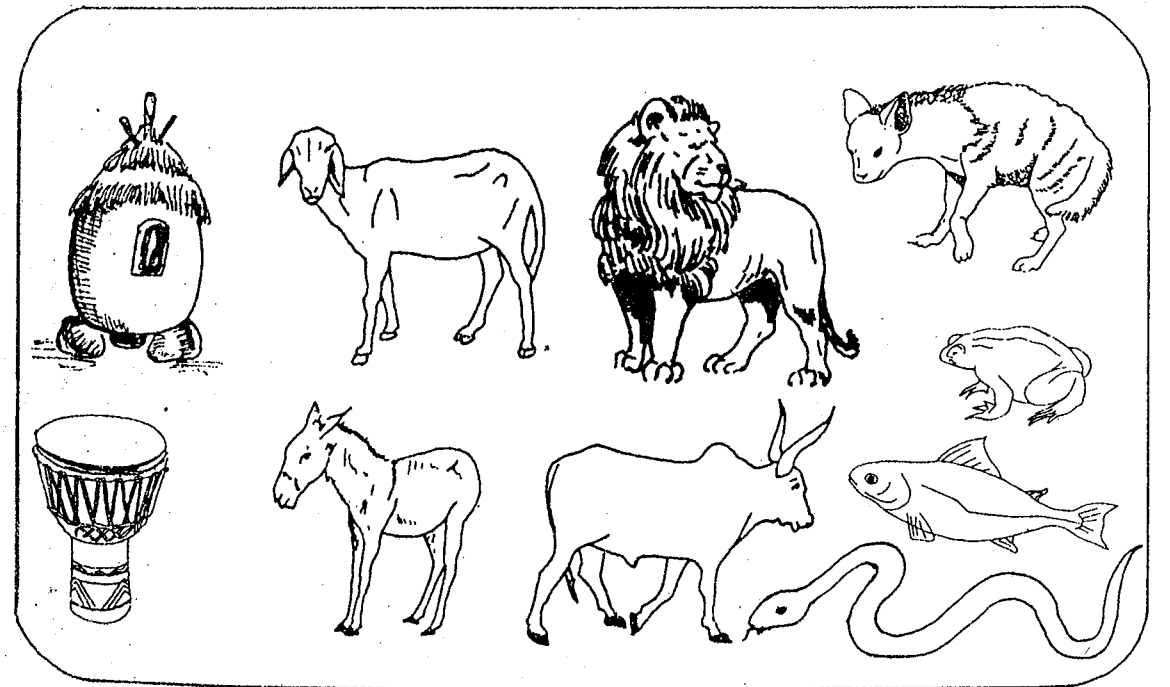
2. Koori ci : bugusow da la, negesow da la, mobiliw da la, sagaw da la.



3. Fen ninnu laje i k'u la dogomanninw koori u dan ma ka kunbabaw fana koori u dan ma.

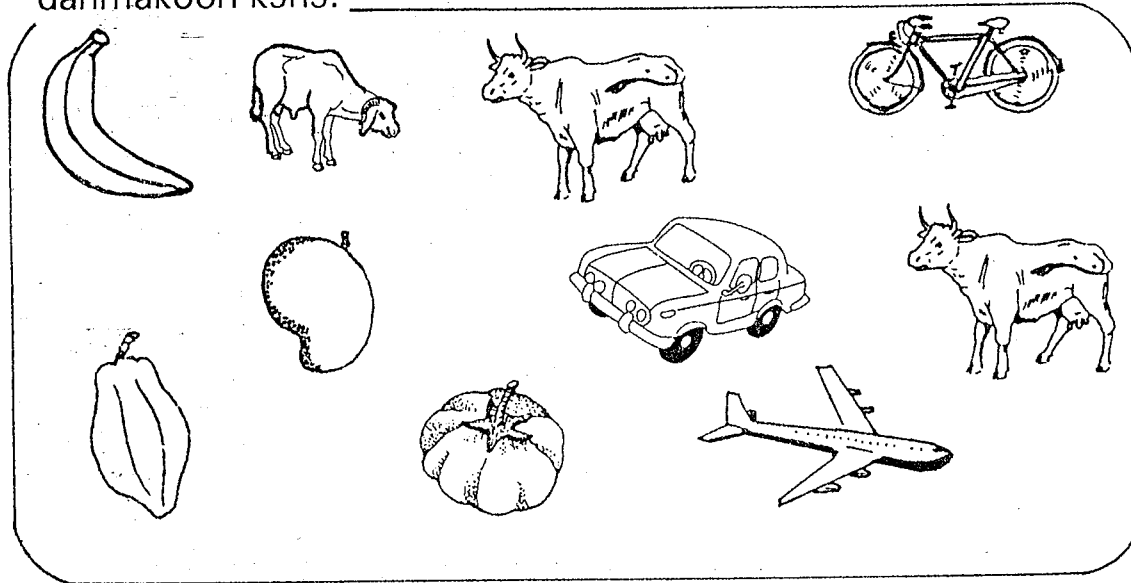


4. Bagan minnu be bin dun, olu koori, minnu te bin dun olu koori, fen tow fana koori.

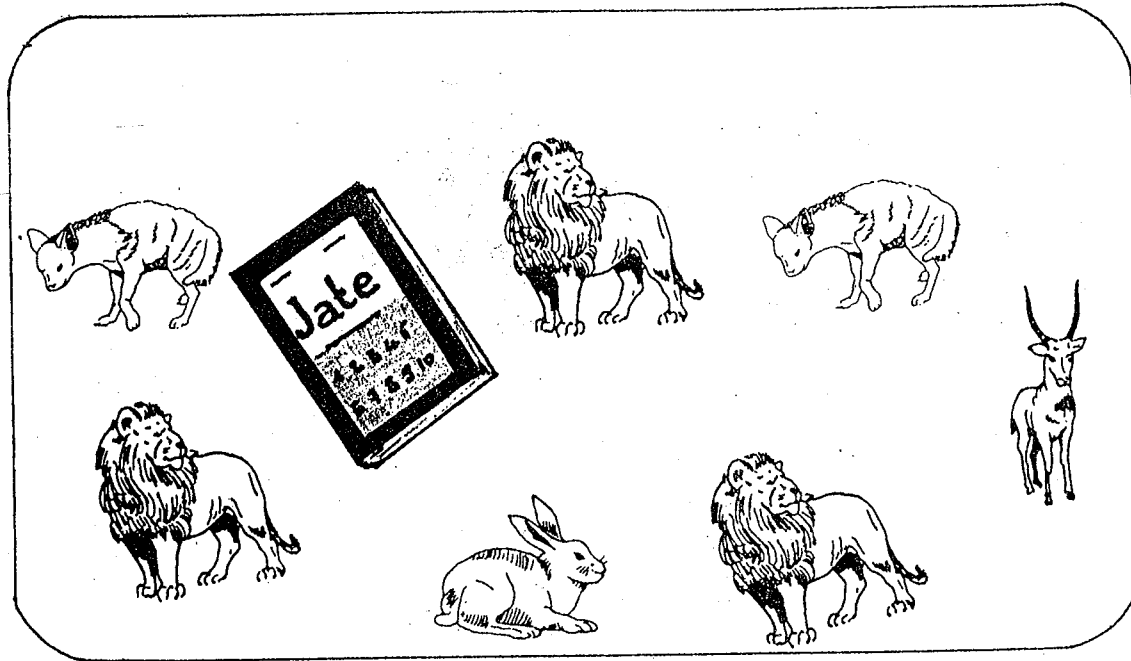


Seginkanni.

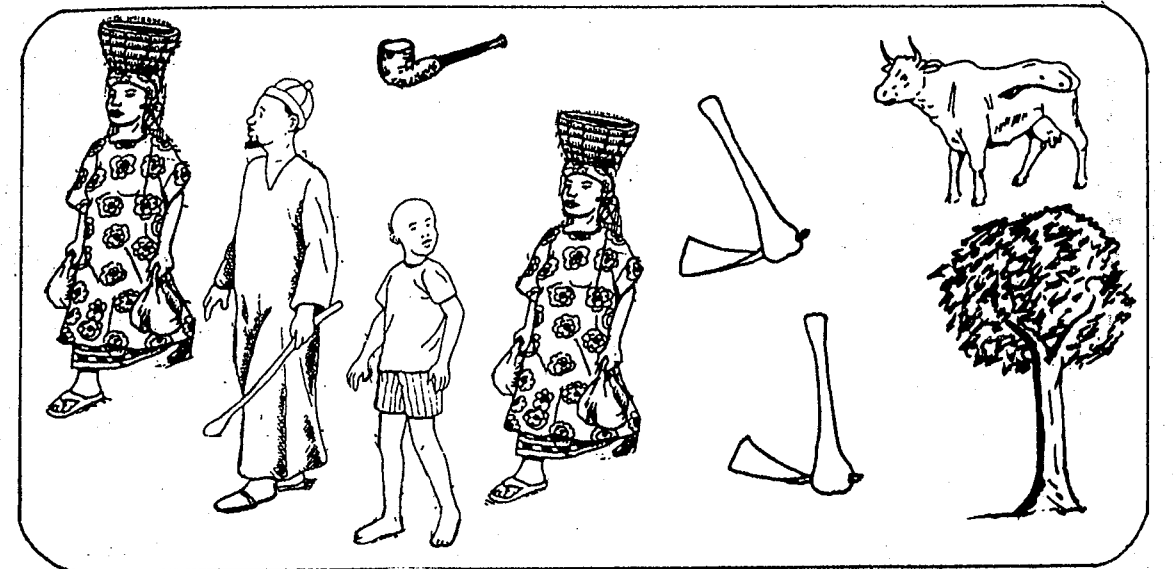
1 Fɛnw kɛ kulu saba ye, ka kulu kelen o kelen kɛ a danmakoori kɔnɔ. _____



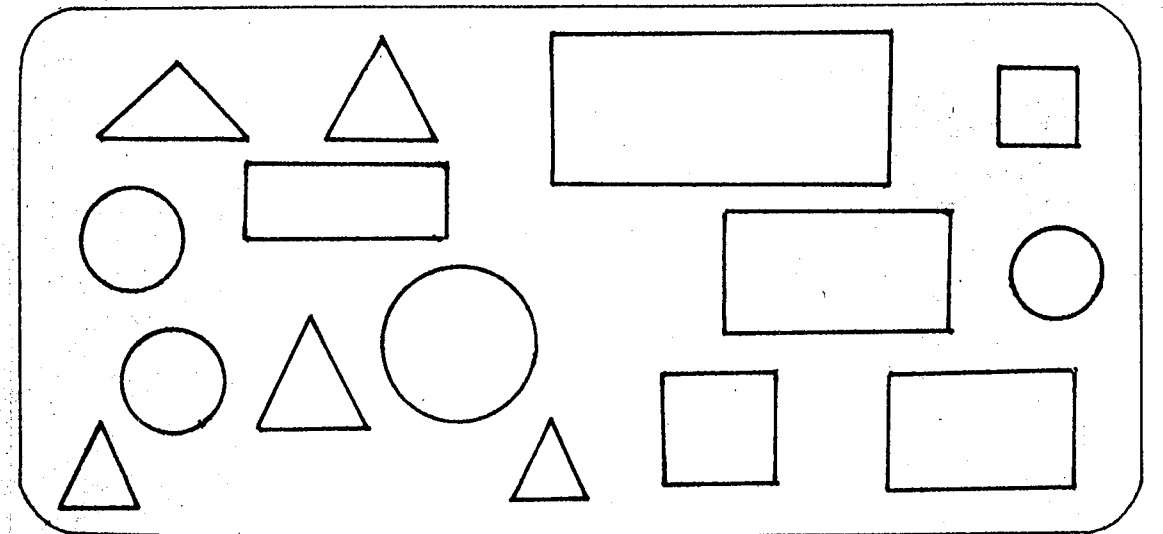
2.Ci kɛ waraba kelen-kelen kan.



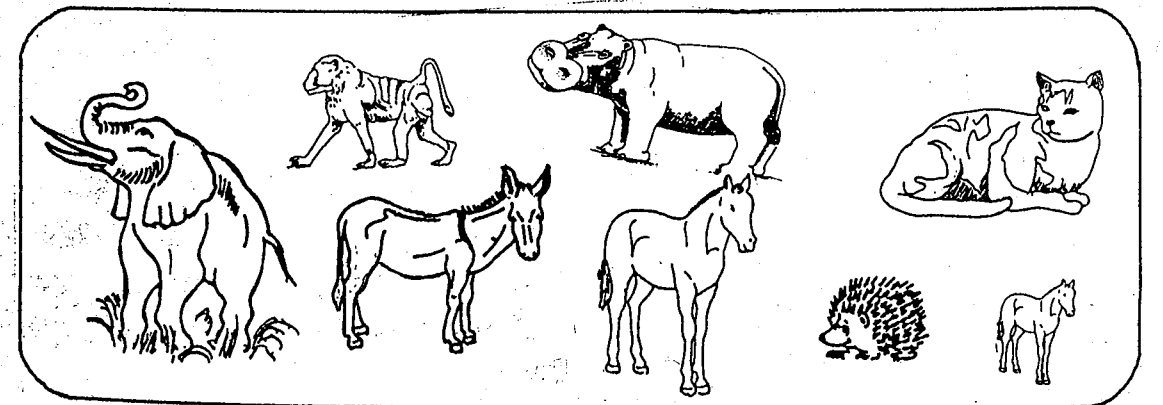
3.Mɔgɔw lamini ni koori ye.



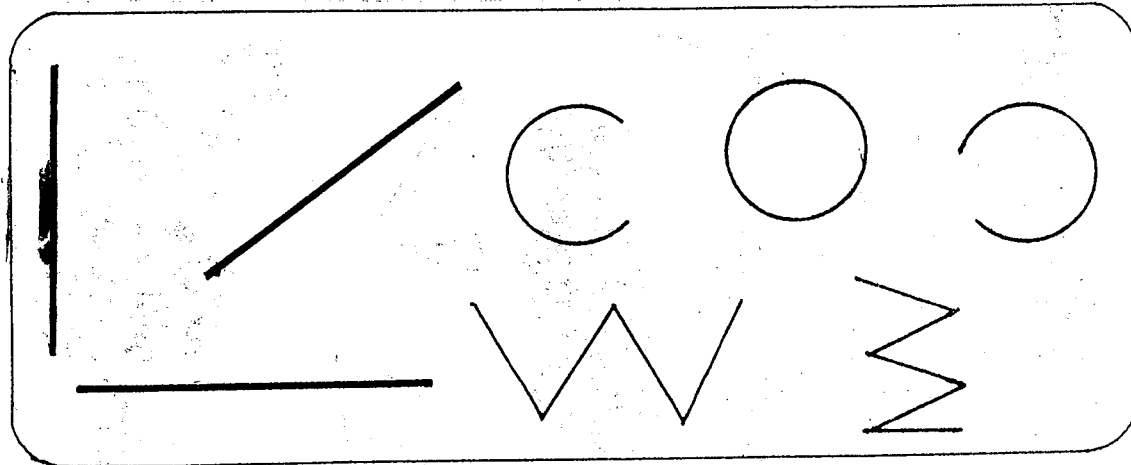
4.Tangili bulamaw lakoori



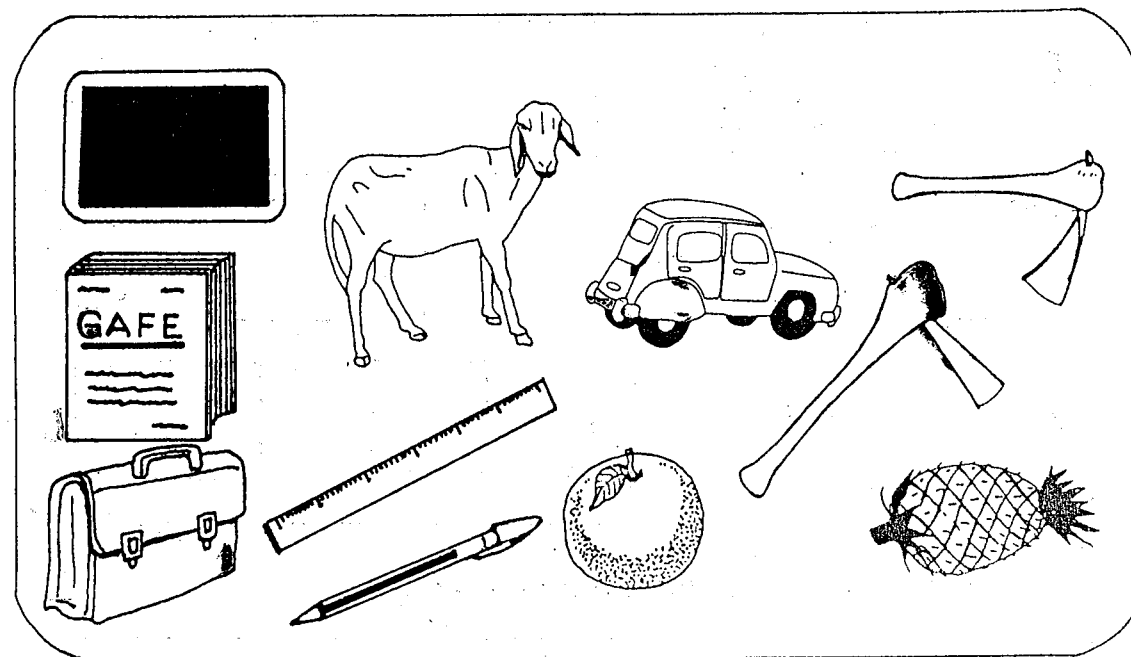
5. Nin taamasiyen (+) kɛ kungosogow kan.



6. Ci minnu ꞑe ye kelen ye, olu lakoori (ꞑew be ke folo)



7. Kalandenminenw lakoori- Senekeminenw lakoori- jiridenw lakoori fen tow fana lakoori



Kalɔsili : Degeli 6^{nan} na, karamogo be ꞑegen dilenw ke sebenfuraw kan, ka ꞑe caman k'u la (bilɛnman, bulama, nɛremuguma, ꞑugujima) ka ben kalandenkulu.hake ma. A b'u ꞑogonna belebele dilan walanba kan.

Kunkeꞑogonsigi

I.Kuntilenna : Kalansen laban na kalanden ka kan ka se :

- ka fenkulu fila sanga ꞑogon ma
- ka kulu fila sigi minnu konofenw ye kelen ye,
- ka kulu fila sigi kelen ta ka caya walima a ka dogoya ni to kelen do ta ye.

II.Baarakeminenw : Jirifuraw, belekisew, kalaninw, jiridenw, farasuw, biki, kayew, kiriyon ani fen werew.

III.Taasira :

Baara keta 1 :

- karamogo be biki naani mine a kininbolo la k'u datugulanw mine a numanbolo la ka ꞑininkali ke ni biki ni datugulan **hake dama ka kan**.Walasa k'o don, datugulanw be ke bikiw la.
- karamogo b'a ꞑini kalandenw fe u ka walanninw jira. A b'u bila ka kalanden hake ni walannin hake sanga ꞑogon ma (karamogo be se ka misali dow ta kuluw konɔ).

Baara keta 2 :

- karamogo be kalanden tan sugandi ka farasu seegin ta k'o tila olu ni ꞑogon ce, ka ꞑininkali ke ni bee ye farasu kelen soro. Farasu deseli be kalanden caya jira : kalanden **hake ka ca** ni farasu hake ye
- kalandenw be segin misali in kan ka farasu caya ni kalanden ye : kalanden **hake ka dogo** ni farasu **hake ye**.

Baara keta 3 :

karamogo be koori wolonwula ani kare kononton tiginaw ke walanba kan nin cogo la.

Kalandenw be nininka ni kooriw ni karew hake ye kelen ye ;
min ka ca ani min ka dogo.

Walasa k'o don, karew ni kooriw bolo be di jagon ma.

Bolodijagonma kelen b'a jira ko :

- kare hake ka ca ni koori hake ye walima
- koori hake ka dogo ni kare hake ye.

Marata :

*Kunkejagonsigi la, fenw hake be se ka ke kelen ye walima do
be caya ni do ye, walima do be dogoya ni do ye.*

----- ni -----dama ka kan (kene)

-----ka ca ni ----- ye (caya)

----- ka dogo ni ----- ye (dogoya)

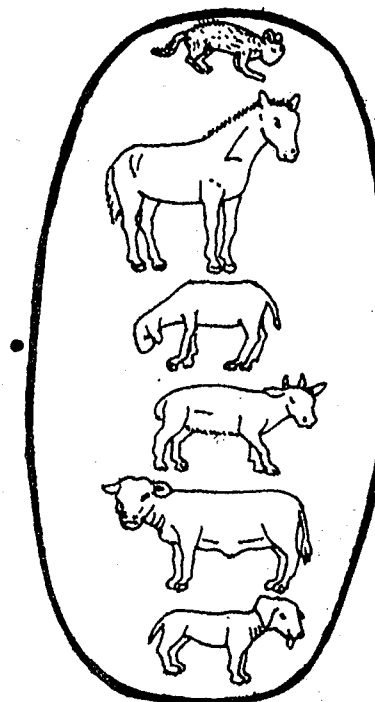
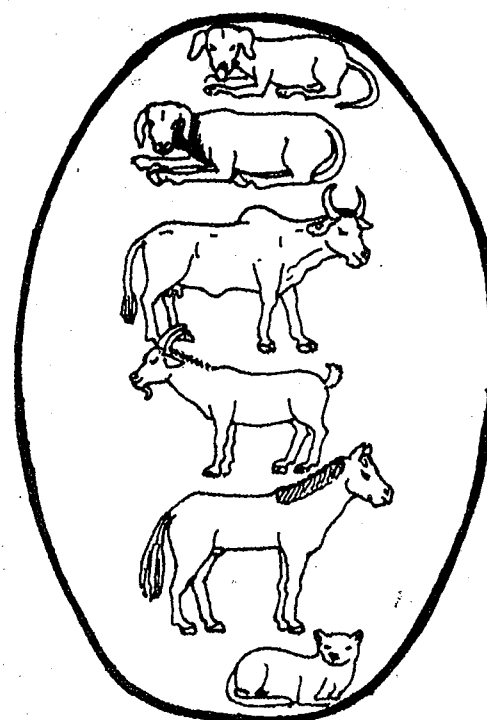
Janto : *Karamago ni kalandenw be se ka baara ke ni fen
werew ye.*

Baara keta 4 :

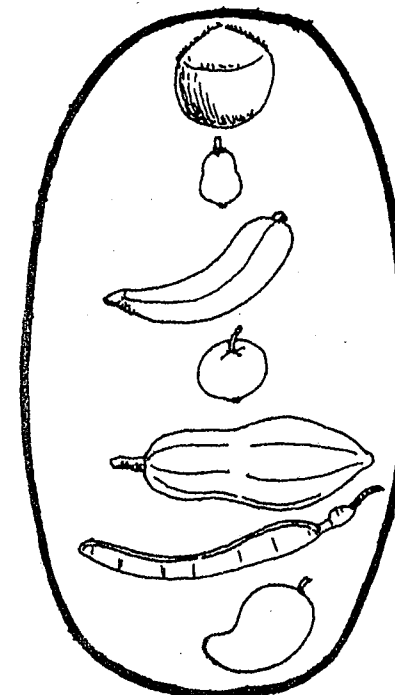
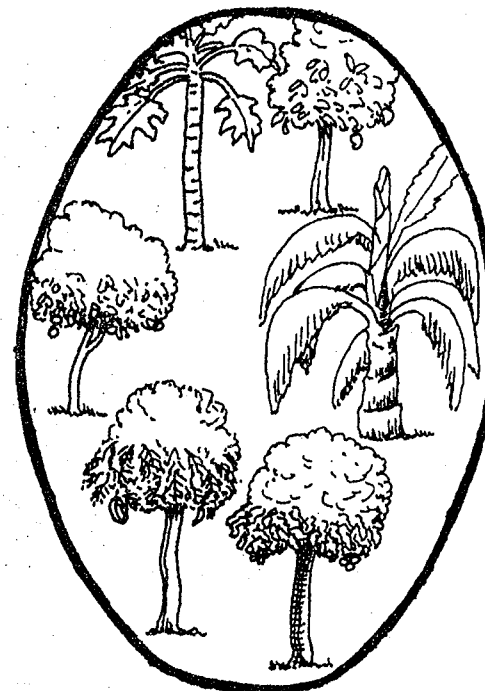
Kalandenw be karenin, koorinin, tangilinin ni kere sabanin
damadow dilan k'u hakew sanga jagon ma.

Degeliw :

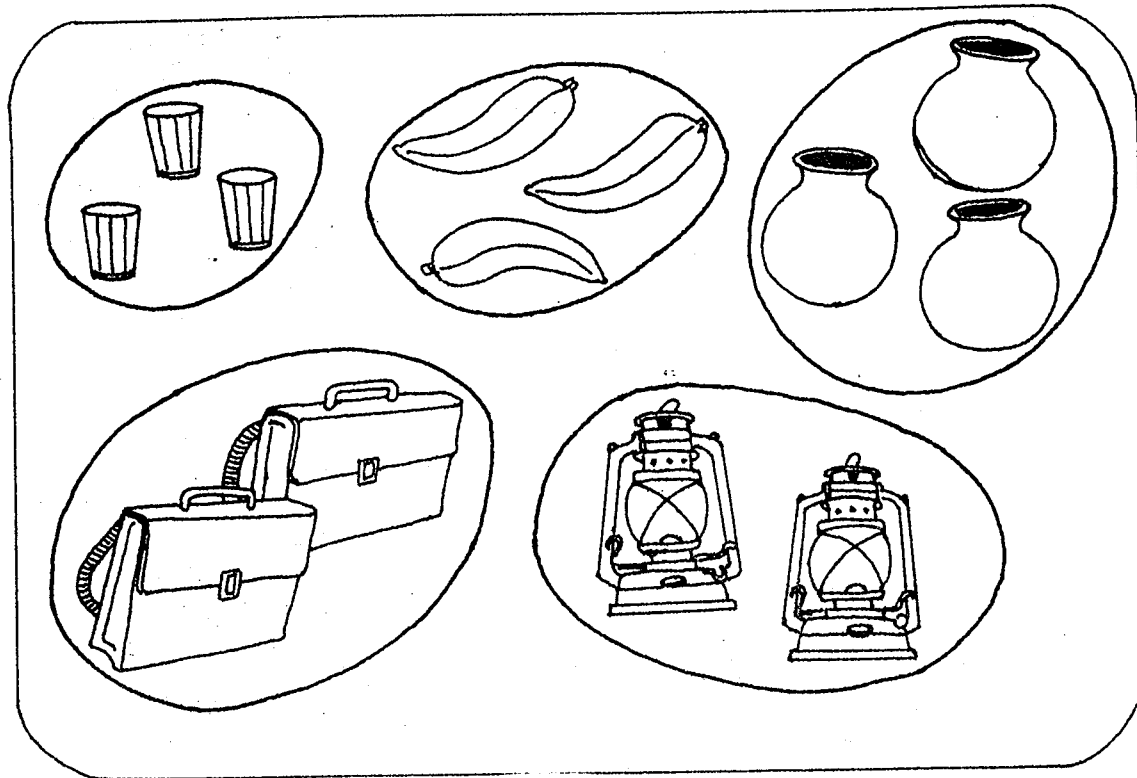
1. Bagan bee n'a den bolo di jagon ma.



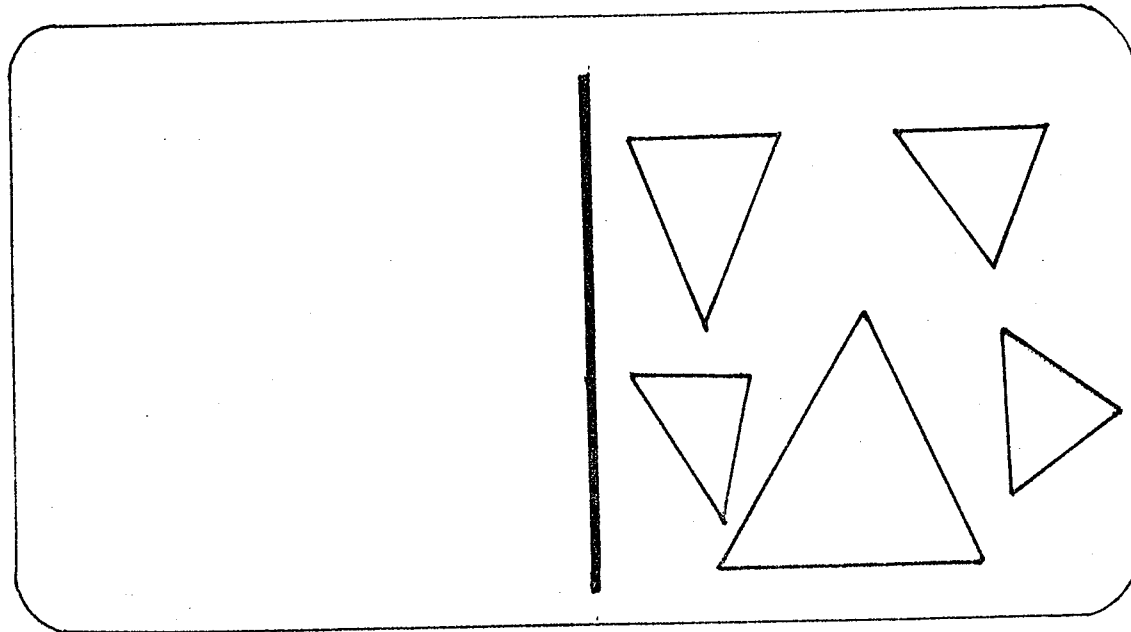
2. Jiriden ni jirisunw na jumen ka ca ?



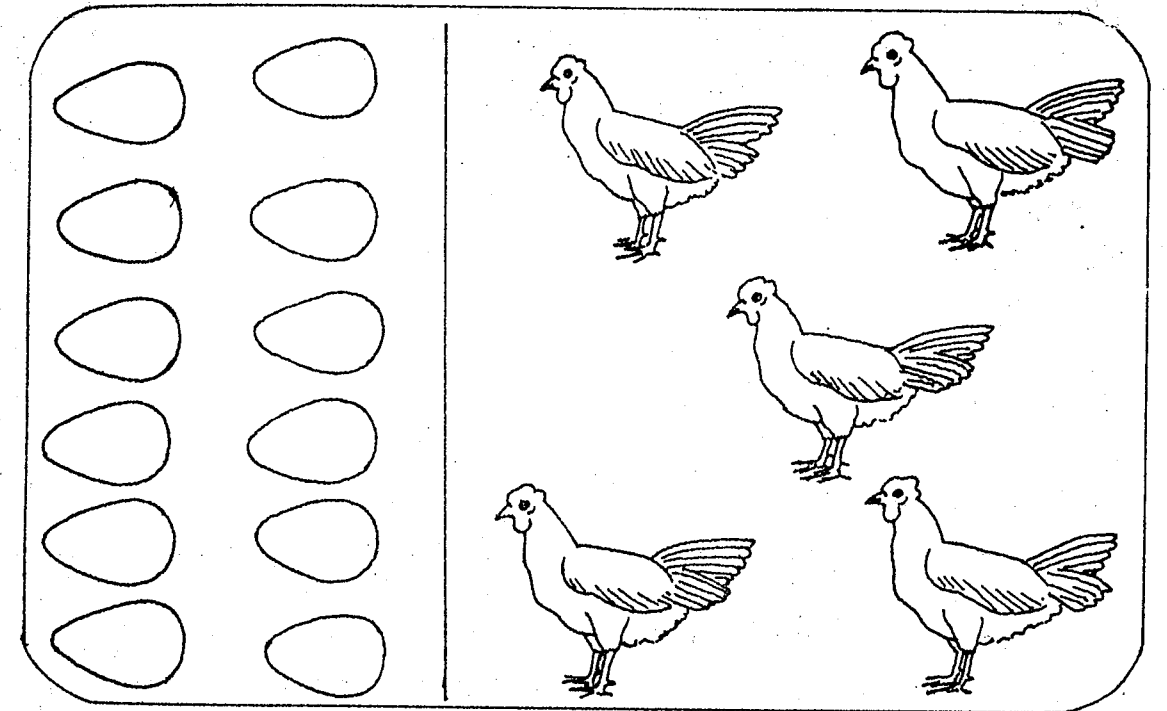
3. Taamasiyen (+) in ke kooriw jukero minnu konofenw ka dogo .



4. Kooriw ci numan fe, minnu hake ka ca ni keresaba hake ye.



5. Ne neremuguma ke sefanw na, minnu hake be dogoya ni sew hake ye.



6. Karamogo be se ka farikolon do laben nin kalansen in kan.

Misali : - Tegere foko kelen, ce kelen ni muso kelen b'u bolo di jogon ma k'u jo.

- Tegere foko fila, kalanden minnu ka fini ne ye kelen ye (bilenman walima jeman walima finman...) olu b'u bolo di jogon ma k'u jo.

- Tegere foko saba, kalanden minnu be bo dugu kelen walima kin kelen na, olu b'u bolo di jogon ma k'u jo.

Ɔogonnadilan

I. Kuntilemma : Kalansen laban na, kalanden ka kan ka se :

- Ka Ɔogonnadilan ke.
- Ka Ɔogonnadilan to dafa.

II. Baarakeminenw :

Kalandenw, kalaninw, farasu, bikiw ani fen werε minnu be soro sigida la.

III. Taasira

Baara keta 1 :

- Kalandenw kodonnen don karamogo ma.
- Karamogo be tegerε fo sije saba, k'i jo ka waatinin ke. A be tila ka segin o kan sije damado.
- Karamogo b'a jini kalanden damado fe, u ka segin karamogo ka waleya kelen in kan.
- Karamogo b'a jini kalanden bee fe u ka segin a ka waleya kelen in kan.
- A jinin don karamogo fe a ka nin waleya in suguya caman werεw jini kalandenw ka segin u kan.

Misali :

Karamogo be tegerε foko kelen ke ka tabali gosi sije kelen
 Karamogo be tegerε foko fila ke ka tabali gosi sije fila
 Karamogo be tegerε foko saba ke ka tabali gosi sije saba.
 Karamogo be tabali gosi ni cilan ye ka tegerε foko kelen ke

Baara keta 2 : Karamogo be kalanden bee labo kalanso kono.

- Karamogo be kalanden damado sugandi (musomanninw ni cemanninw) k'u jo musomannin kelen ani cemannin fila, musomannin kelen cemannin fila.
- Karamogo b'a jini kalanden dow fe, u ka waleya kelen in Ɔogonnadilan ke ni kalanden tow ye.

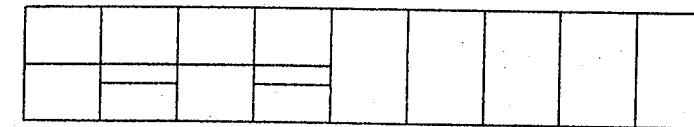
Baara keta 3 : Karamogo b'a jini kalandenw kelen - kelen bee fe u ka kalanin 1, farasu 1, kalanin 1, farasu 1 kalanin 1 farasu 1 bila Ɔogon kerefe tabali kan

-Karamogo b'a jini kalandenw fe u k'u yere ka waleya kelenw laje konuman ka soro k'u Ɔogonna caman werεw ke.

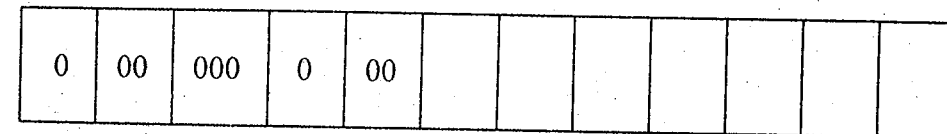
A jinin don karamogo fe a ka nin waleya in suguya caman ke ni sigida fen werεw ye .

Degeliw

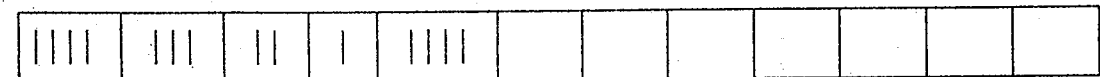
1. Nin katimu in dafa.



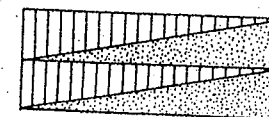
2. Nin katimu in dafa :



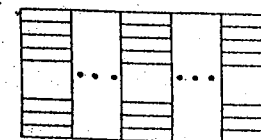
3. Nin katimu in dafa :



4. Segin nin Ɔogonnadilan kan



5. Segin nin Ɔogonnadilan kan



Jɔyɔɔsigi

I.Kuntilenna :

Kalansen laban na, kalanden ka kan ka se :
- ka fɛnw jɔyɔɔsigi ka da mankutu dɔ kan.

II.Baarakeminɛnw :

-kalandenw, bere minnu kundama tɛ kelen ye, kalandenw ka minɛnw tabaliw kan, buwatiw, tasaw walima filen minnu bɛ se ka sigi jɔgɔn kɔnɔ, sawura tigelenw karitɔn na i n'a fo kɛɛsabaw, karew, tangiliw ...

III.Taasira :

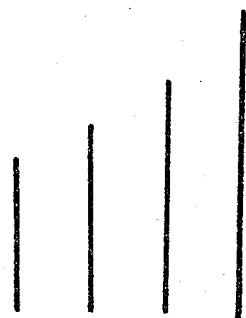
Baara kɛta 1 : Kalanden tan (10) minnu kundama tɛ kelen ye. olu bɛ na walanba la. Kalanden tɔw b'olu bɛɛ la janmanjan sugandi, k'o bɔ kulu la.

-Minnu tora, olu fana bɛɛ la janmanjan bɛ sugandi ka bɔ kulu la. Sugandili bɛ kɛ nin cogo la, k'u jɔ-jɔ jɔgɔn kɔ fo k'a foori.
-O kɔ, kulu wɛɛ bɛ na. O kulu in kalandenw yɛɛ de b'u jɔ jɔgɔn kɔ k'a damine surunman na ka yɛɛn.

Baara kɛta 2 : bere minnu janyaw tɛ kelen ye, olu duuru bɛ bila tabali kelenkelenna kan.

-kalandenw b'u da jɔgɔn kɔ, k'a ta surunman na fo janmanjan.

-kalandenw bɛ berew dacogo nataliye kɛ walanninw kan.



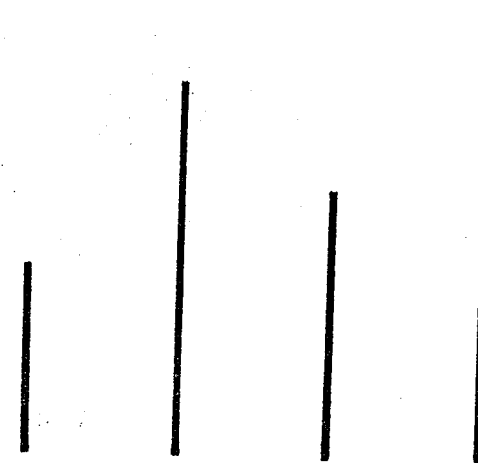
Misali

Kɔɔsili : Kalandenw bɛ se ka baara in kɛ u kelen na walima kulu ni kulu.

-kalanden damadɔ bɛ na u ka nataliye waleya walanba kan.

Baara kɛta 3 : Kalandenw bɛ segin baara kɛta filanan kan ni minɛn wɛɛw ye i n'a fo gafew, karew, buwatiw, tasaw ani filenw.

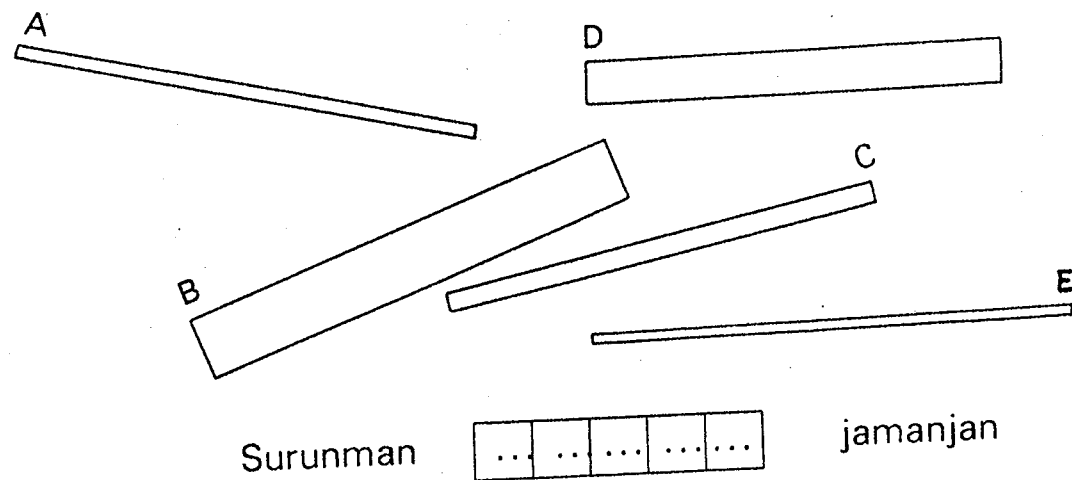
Baara kɛta 4 : Segin ka nin tiiriw ci, k'a damine surunman na k'a laban janmanjan na.



Marata : Jɔyɔɔsigi ye ka fɛn suguya kelenw sigi-sigi jɔgɔn kɔ k'a da sariya dɔ kan.

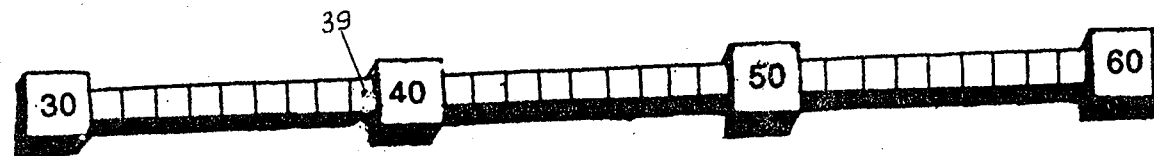
Degeliw

1. Belɛkise suguya tan (10) ninnu sigi-sigi ɲogɔn ko, k'a damine misɛnmannin na ka t'a bila kunbaba la.
2. Jiriden ninnu (mangoro walima lenburuba) sigi-sigi ɲogɔn ko k'a damine belebele la ka taa fitinin na.
3. Kunɲogɔn donw fo ka tugu ɲogɔn ko.
4. Bere ninnu sigi ɲogɔn ko ka bo surunman na ka t'a bila jamanjan na.



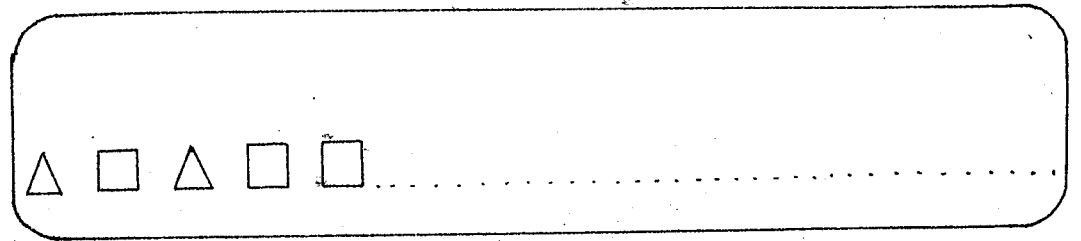
5. Da ninnu sigi katimu kɔnɔ: 56, 45, 32, 59, 43, 37, ~~39~~

39 donna kaban

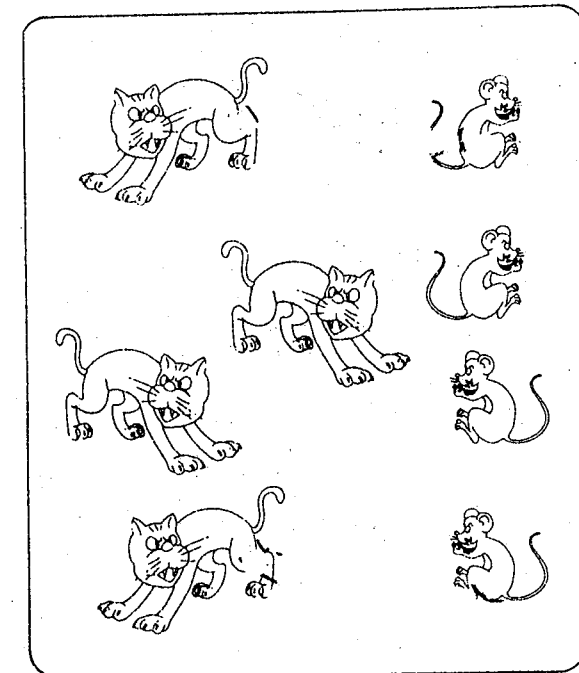


Seginkanni :

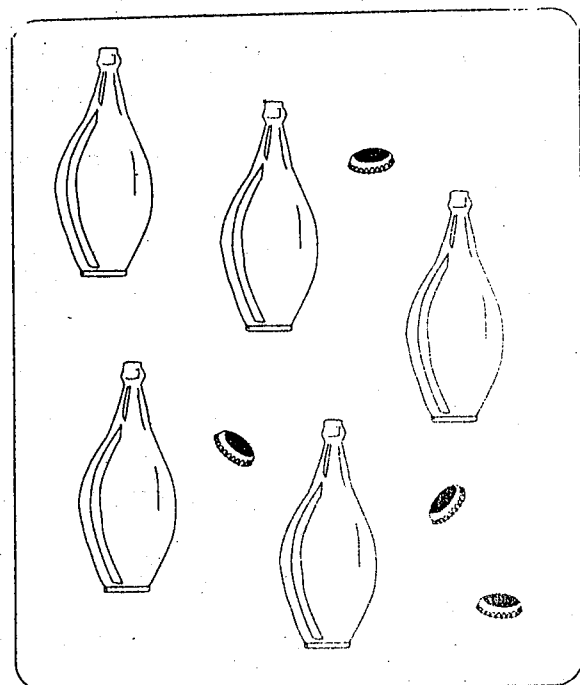
1. Dunden 5 file minnu kɔnɔji hakew te kelen ye. U sigi ɲogɔn ko ka bo min kɔnɔji ka dɔgo la ka laban ni min ta ka ca ye. (Karamogo be na ni dundenw ni ji ye kalanso kɔnɔ)
2. Jaw sigicogo laje ka ɲe ; sigicogo in ɲogɔnna 2 ke ka tugu u la.



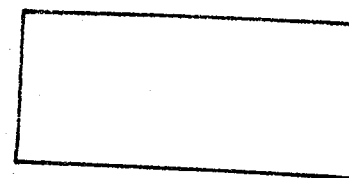
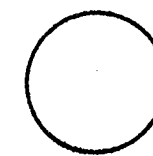
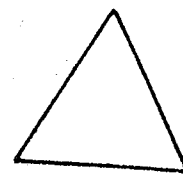
3. Jakuma kelen ni pine kelen bolo di ɲogɔn ma ni tiiri ye.



4. Dundenw ni datugulanw hake ye kelen ye wa ?

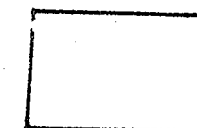
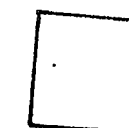
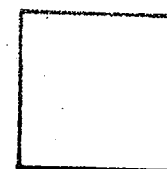


5. Segin tiiri ninnu kan ka bo surunman na ka taa janmanjan na.



Yoro filanan

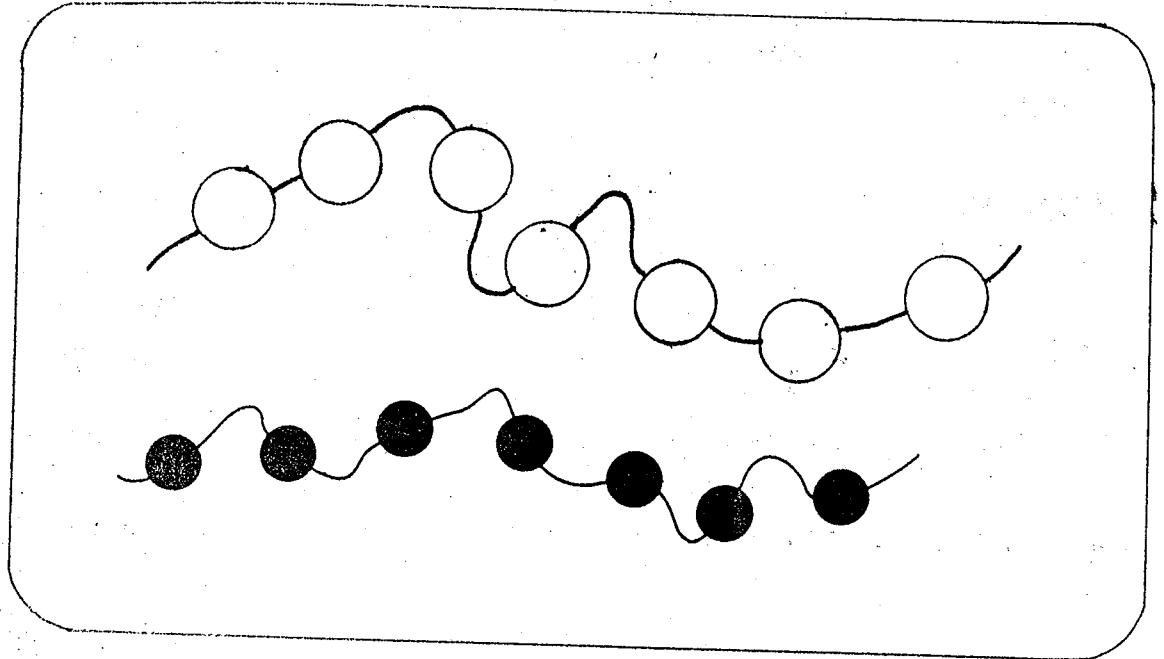
Sigiyarodanfara Kenɛsumakalan



6. Tije wa nkalon

Kononkise finman ni jeman hake ye keien ye

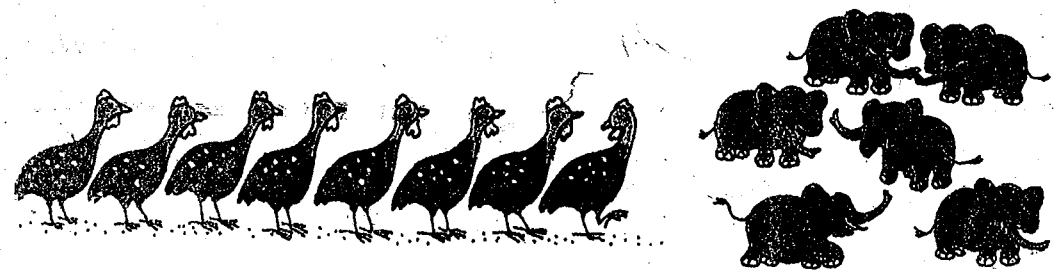
NK



7. Kumasen min ye tije ye, nin taamasiyen (+) k'o laban na, tangilinin konɔ.

. Kamiw ka ca ni samaw ye

. Kamiw ka dogo ni samaw ye



Ɔɛɛ - kɔɛ

I. Kuntileɛna : Kalansen laban na kalanden ka kan ka se :

- ka ɛɛn min bilalen bɛ a Ɔɛɛ walima a kɔɛ dɔn, k'a jira
- ka ɛɛn dɔ bila a Ɔɛɛ walima a kɔɛ.
- Ka ɛɛn dɔ bila mɔɔ, bagan ani ɛɛn wɛɛɛ Ɔɛɛ walima a kɔɛ.

II. Baarakɛminɛnw :

Kalandenw, karamɔɔ, kalanso kɔnɔminɛnw

III. Taasira :

Baara kɛta 1 :

Karamɔɔ b'a ɲini kalandenw ɛɛ, ɛɛn minnu b'u Ɔɛɛ, u k'olu jira walima k'u kɔɔ, i n'a ɔ walanba, karamɔɔ ka tabali...

-A b'a ɲini kalandenw ɛɛ, ɛɛn minnu b'u kɔɛ, u k'olu jira k'u kɔɔ i n'a ɔ kogo, gafemarayɔɔ...

Baara kɛta 2 :

-Karamɔɔ b'a ɲini kalanden dɔ ɛɛ a ka n'i ɔ a tɔɔɔɔn dɔw ɔɔɛn Ɔɛɛ.

-A b'a ɲini kalanden kelen in ɛɛ a ka ɛɛn dɔ ta k'o bila a tɔɔɔɔnw Ɔɛɛ.

-O kɔ, a bɛ ɛɛn dɔ kɔɔ kalanden k'o bila a kɔɛ.

Baara kɛta 3 :

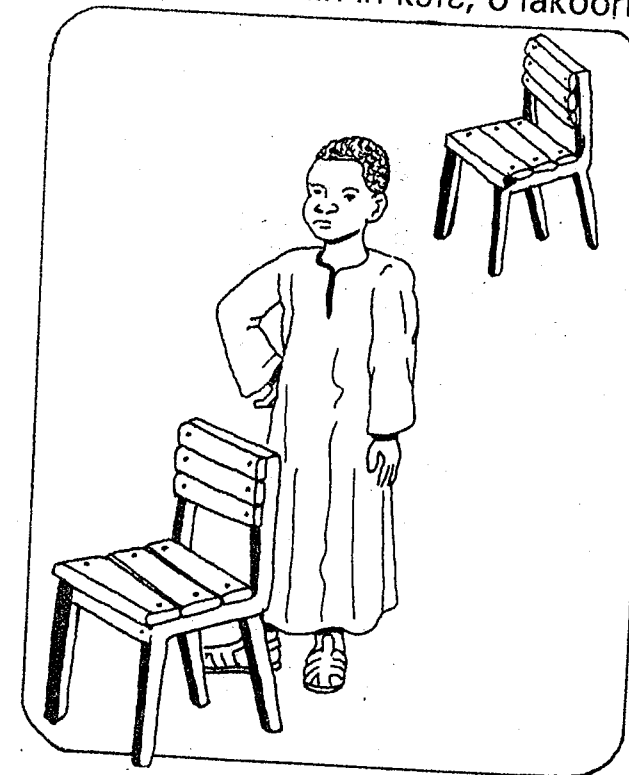
Karamɔɔ b'a ɲini kalandenw ɛɛ, u ka ɛɛn dɔ bila u Ɔɛɛ (walannin, farasu).

-A b'a ɲini kalandenw ɛɛ u ka ɛɛn dɔ bila u kɔɛ (walanninw, farasu)

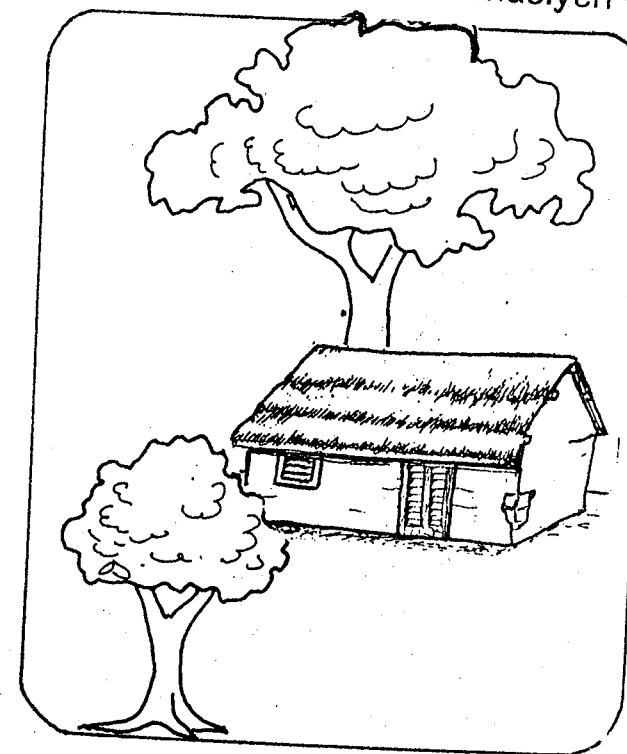
-A b'a ɲini kalanden damadɔ ɛɛ, u tɔɔɔɔn minnu bɛ u Ɔɛɛ walima u kɔɛ, u k'olu tɔɔ ɔ.

Degeliw :

1. Sigilan min bɛ denmisɛnnin in kɔɛ, o lakoori.



2. Jiri min bɛ so Ɔɛɛ, o jira ni nin taamasiyɛn (x) ye.



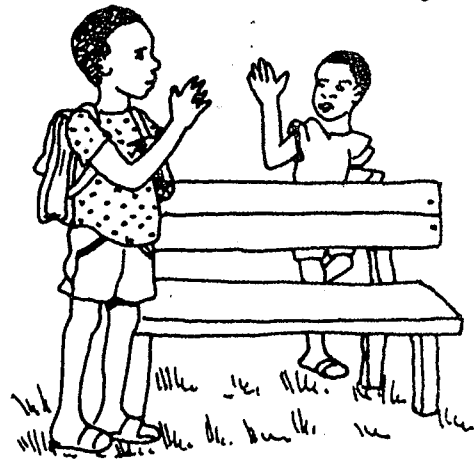
3. Denmisennin min be ka taama muso jefɛ, o lakoori.



4 - bagan min be musomannin jefɛ, o lakoori.



5 - cɛmannin min be sigilan kɔfɛ, o koori.



Numan - Kinin

I. Kuntilemma : Kalansen laban na, kalanden ka kan ka se :

-ka farikolo kininfeyɔɔw n'a numanfeyɔɔw dɔn ka bɔ jɔɔn na.

-ka mɔɔɔ were kinin n'a numan dɔn ka bɔ jɔɔn na.

II. Baarakeminɛnw : Kalandenw, karamɔɔ, kalanso kɔnɔminɛnw.

III. Taasira :

Baara kɛta 1:

-karamɔɔ b'i jɔ walanba kɛrɛfɛ k'a kɔdon kalandenw ma k'a numanbolo jira u la.

-A b'a jini kalandenw fɛ u k'u numanbolo kɔɔta, ka segin k'a jini u fɛ u k'u kininbolo kɔɔta.

Baara kɛta 2 :

Karamɔɔ b'a jini kalanden dɔ fɛ a ka ntola bɔ a nɔ na n'a sen ye.

-A b'a jininka a y'a sen jumen kɛ ka ntola bɔ a nɔ na.

Baara kɛta 3 :

Karamɔɔ b'a jini kalanden dɔ fɛ a k'a farikolo numanfeyɔɔ dɔ jira walima k'a kɔfɔ (jɛ, tulo, bolo, sen)

-A b'a jini kalanden dɔ fɛ a k'a farikolo kininfeyɔɔ dɔ jira (jɛ, tulo, bolo, sen)

-A be kalanden damado jininka u be sɛbɛnni kɛ n'u bolo min ye.

Baara kɛta 4 :

Karamɔɔ b'a jini kalandenw fɛ u k'u tɔjɔɔn dɔ kɔdonnen kininbolo, kininsɛn, numanfɛtulo jira

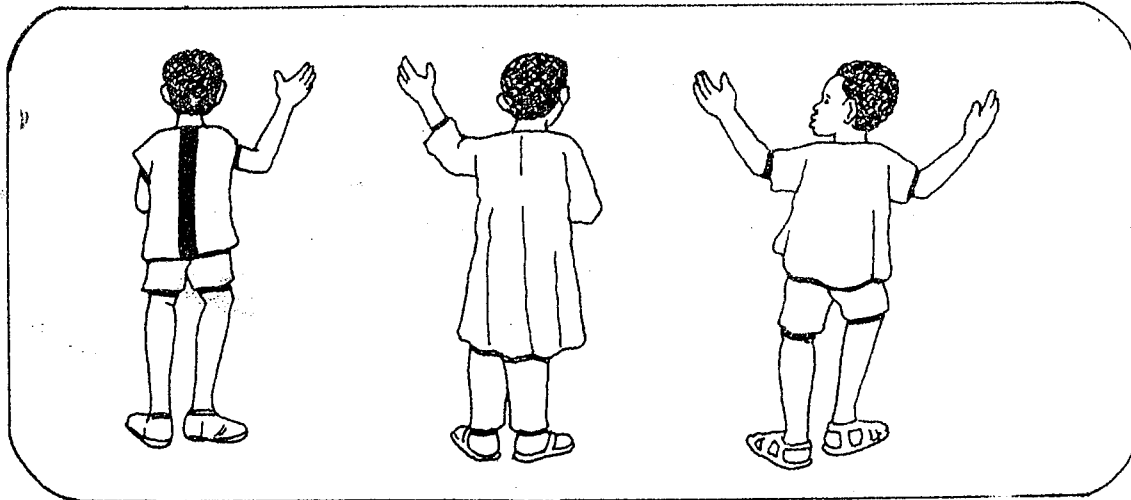
Baara keta 5:

(A be ke farikolon waatiw la).

Kalandenw taamato b'u kininsen ta jagon fe, k'u numansen fana ta jagon fe.

Degeliw :

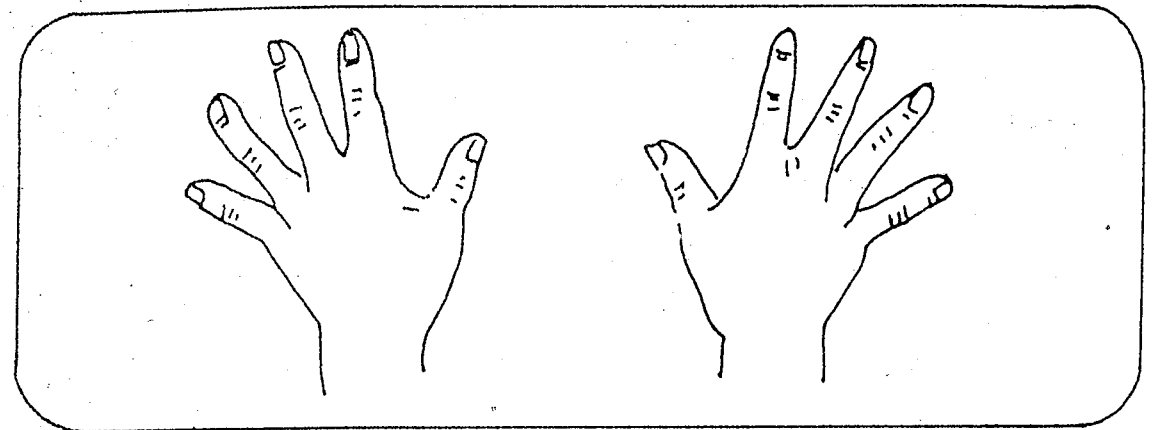
1.Nin taamasiyen (x) ke denmisenninw kelenkelenna numanbolo kan.



2. Nin taamasiyen (x) ke denmisenw kininsen kan



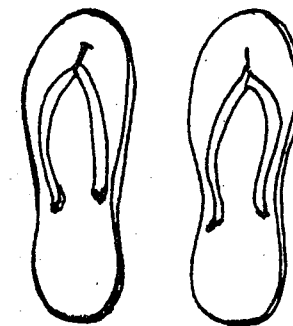
3. Numanbolo lakoori



4. Jε ke musomannin kininbolo la ani cemannin numansen na.



5. Ci ke kininsensamara kan i ka numansensamara lakoori.



Kɔnɔ- Kɔkan Kɔnɔna – Kɔkanna

I. Kuntilenna : kalansen laban na, kalanden ka kan ka se :

- k'a don ni fen do be kene dantigelen do kono walima a kakan.
- K'i jo walima ka fen do bila kene dantigelen do kono walima a kakan.
- Ka yoro koorilen do kɔnɔna n'a kɔkanna don, k'u jira.
- K'a lamini fenw n'a delinafenw kɔnɔna n'u kɔkanna don, hali u jalama..

II. Baarakeminɛnw

- kalandenw, jurukise, buwati, palan, segi, belekisew, sikolow, kabakuru, warimisenw...

Kɔlɔsili : buwati, palan, segi ka kan ka ke datugulanmaw ye.

III. Taasira

Baara keta 1 :

- karamogo be minen do sigi tabali kan kalandenw nekoro.
- Karamogo be fen do bila (belekise, sikolo, warimisenw) minen in kono, k'a datugu.
- Karamogo be kalandenw jininka fen in bilayoro la .

Baara keta 2 :

- karamogo be fen do bila minen kelen in kakan.
- A be kalandenw jininka fen in bilayoro la

Baara keta 3:

- kalandenw b'u jo ka kene do koori.
- Karamogo b'a jini kalanden do fe a k'i jo koori in kono ka soro k'a fo : « N be koori kono, n b'a kɔnɔna na. »
- Karamogo b'a jini kalanden kelen in fe a ka bo koori kono ka soro k'a fo : « n be koori kakan, n b'a kɔkanna na. »

Baara keta 4:

- karamogo be koori do ci duguma.
- A b'a jini kalandenw fe, dow k'u jo koori kono, dow k'u jo a kakan.
- kalanden bee b'i joro pereperelatige.
- kalanden be kabakuru bila koori kono an'a kakan.

Baara keta 5:

- kalanden be koori ci walanba kan.
- kalanden were be nin taamasiyen (-) ke sije kelen koori kono, sije fila koori kakan.

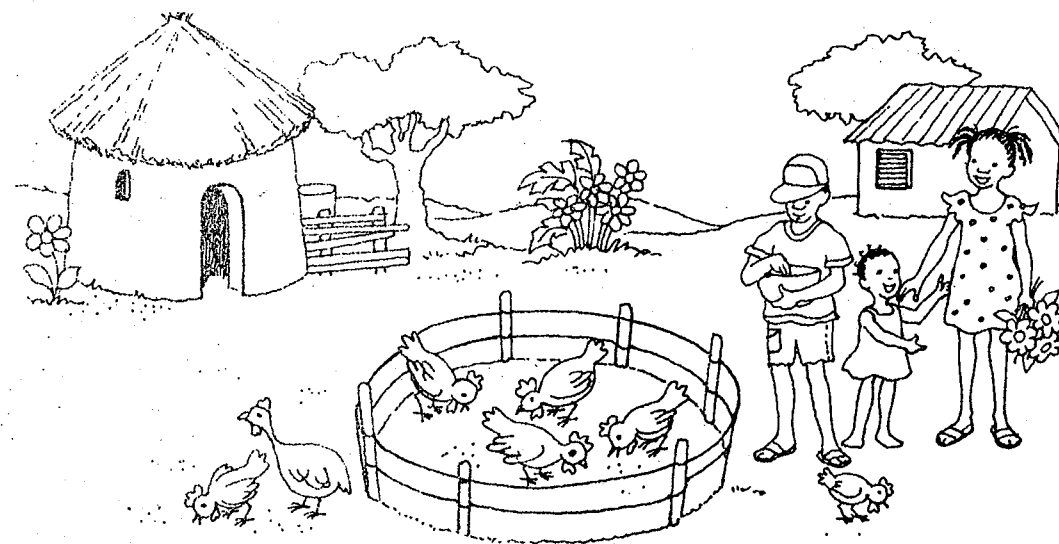
Kɔlɔsili : karamogo be se ka baara keta folo fo naaninan ke farikolon waati la.

Baara keta 6 :

Kalandenw be koori do ci u ka walanninw kan ka nin taamasiyen (+) ke o kono.

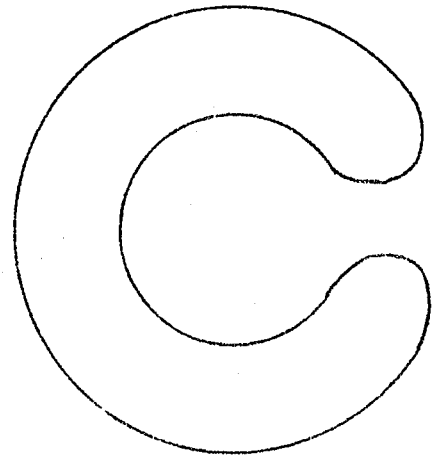
Baara keta 7 :

- Ne do ke sew la, minnu be sinsan kono

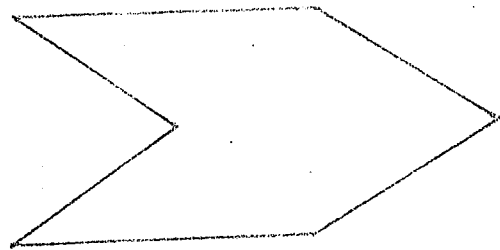


Degeliw

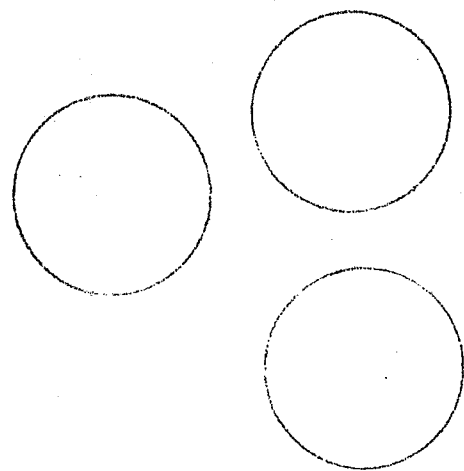
1- Ci datugulen do ke walannin kan.
A konona ke je bulama ye.



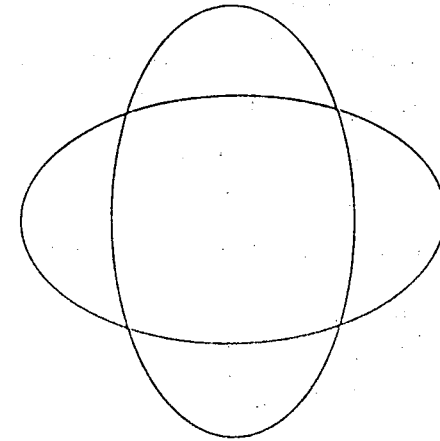
2- Ci datugulen do file, nin taamasiyen (-) in ke a kakan.



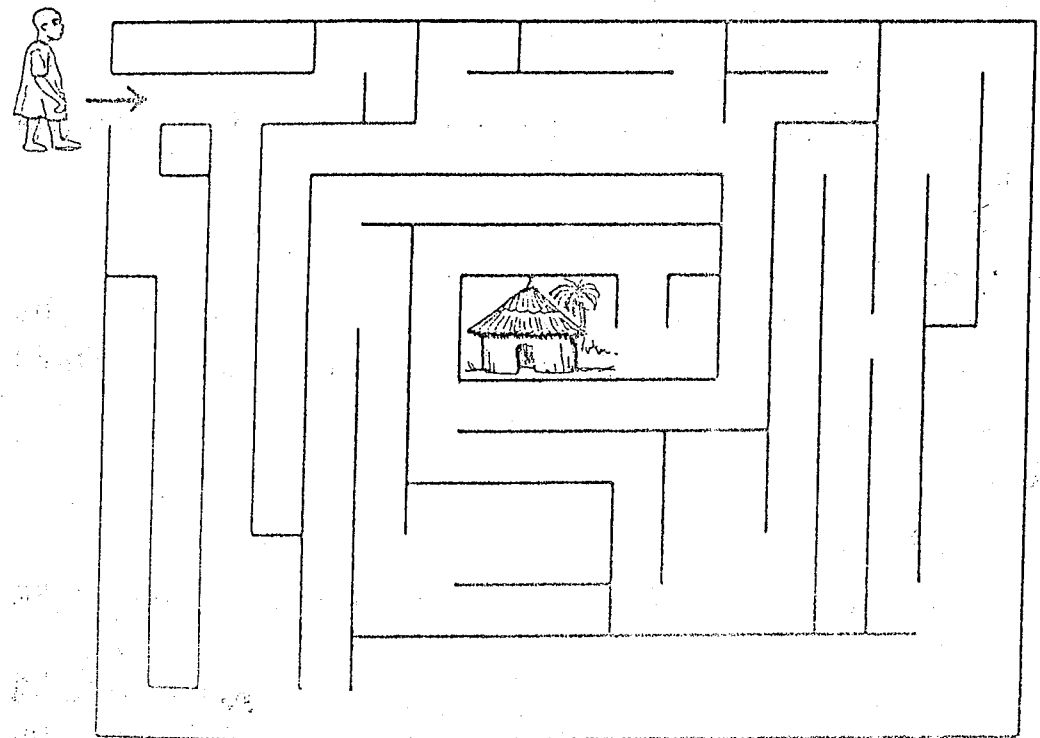
3- Koori saba file walanba kan. U kononaw ke je do ye



4- Tomi ke, min be soro koori bilenman ni koori bulama konon.



5- Denmisen in deme ka don so konon.



Kan – kɔrɔ
Kunna – jukɔrɔ

I. Kuntilenna : kalansen in laban na, kalanden ka kan ka se :

- k'i jɔ, k'i sigi walima k'i da fen dɔ kan ani a kɔrɔ
- ka fen dɔ jira fen wɛrɛ kan walima a kɔrɔ
- ka fen dɔ bila fen wɛrɛ kunna walima a jukɔrɔ.
- Ka kan – kɔrɔ ani kunna – jukɔrɔ danfaraw dɔn.

II. Baarakeminɛnw :

Kalandenw, dununnin, sigida fen wɛrɛw.

III. Taasira :

Baara kɛta 1

Kalanden dɔ b'i sigi a ka tabali kan, dɔ wɛrɛ b'i sigi a ka tabali kɔrɔ. Jɛninkali be ke olu sigiyɔrɔw la.

Baara kɛta 2

Karamɔgɔ b'a ka minen dɔw bila tabali kan ka dɔ wɛrɛw bila a jukɔrɔ. Jɛninkali be ke minen ninnu bilayɔrɔ la.

Baara kɛta 3

Karamɔgɔ be banfula don a kun na ka jɛninkali ke banfula be yɔrɔ min. A be sɔrɔ ka banfula bɔ k'o yanga a kunkolo sanfɛ ka jɛninkali ke banfula be yɔrɔ min (a kunna).

Baara kɛta 4

O be ke farikolon waati.

Karamɔgɔ be dununnin fɔ, kalandenw be tugu jɔgɔn kɔ ka koori dilan

- karamɔgɔ be don koori la ka dununnin sigi a kun ka kalandenw jɛninka dununnin be yɔrɔ min (dununnin be karamɔgɔ kun)
- karamɔgɔ b'a jini kalandenw fɛ, u k'u bolo kɔrɔta u kunna

- karamɔgɔ be dununnin da duguma ka kalanden dɔ sigi o kan ka tow jɛninka dununnin be yɔrɔ min (dununnin be kalanden jukɔrɔ)
- karamɔgɔ be dununnin bila a bolo kɔrɔ ka jɛninkali ke a be yɔrɔ min (dununnin be karamɔgɔ bolo kɔrɔ)
- karamɔgɔ b'a fɔ kalanden bɛɛ k'u numanbolo sɛɛnɛ, a be tila k'a jini u fɛ, u k'u kininbolo bila u numanbolo jukɔrɔ.
- Karamɔgɔ b'a jini u fɛ tugun, u k'u kininbolo bila u numanbolo kɔrɔ.
- Karamɔgɔ be dununnin ta k'a jini kalandenw fɛ, u k'u numanbolo sɛɛnɛ: dununkan fɔlɔ, u b'u kininbolo da u numanbolo kan, filanan, u b'a d'a jukɔrɔ, sabanan, u b'a yanga a kunna, naaninan, u b'a jigin a kɔrɔ.

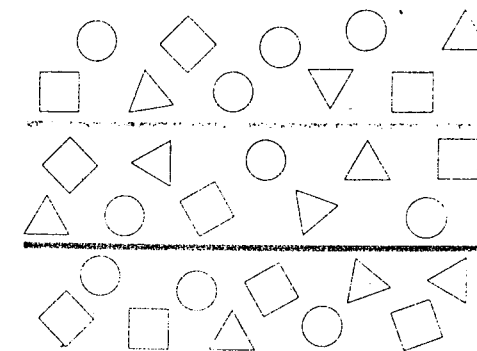
Kɔlɔsili :

A jɛninen be karamɔgɔ fɛ, a ka misali wɛrɛw di ni kan – kɔrɔ, kunna-jukɔrɔ ye kalandenw ka lamini na.

Baara kɛta 5 :

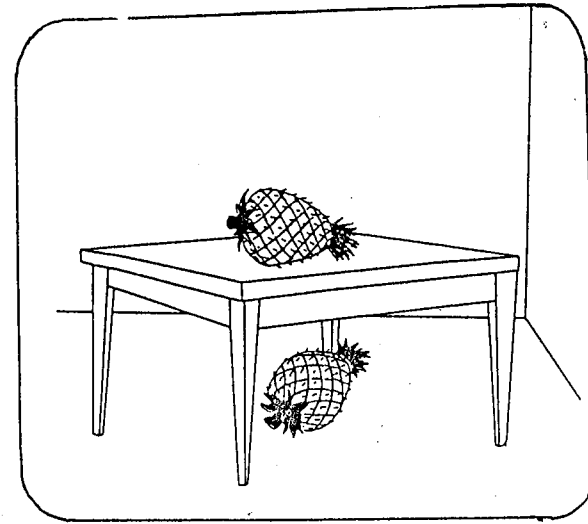
Jɛ dɔ ke :

- Kooriw la, minnu be tiiri nɛrɛmuguma sanfɛ.
- Kɛrɛ sabaw la, minnu be tiiri finman jukɔrɔ
- Kooriw la, minnu be tiiri finman sanfɛ

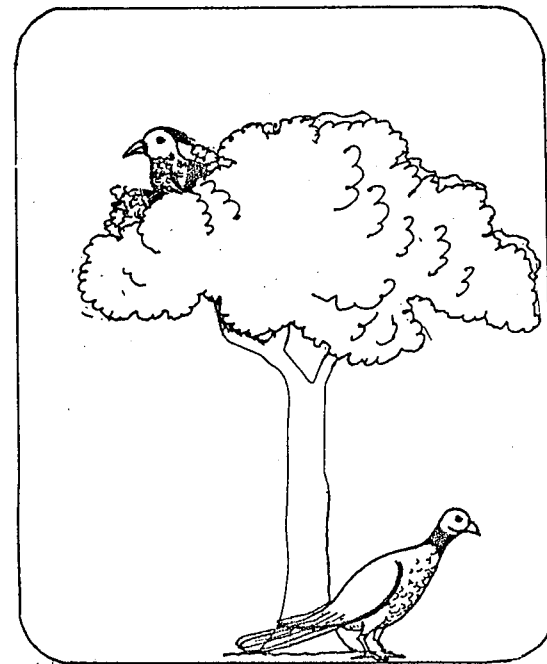


Degeliw

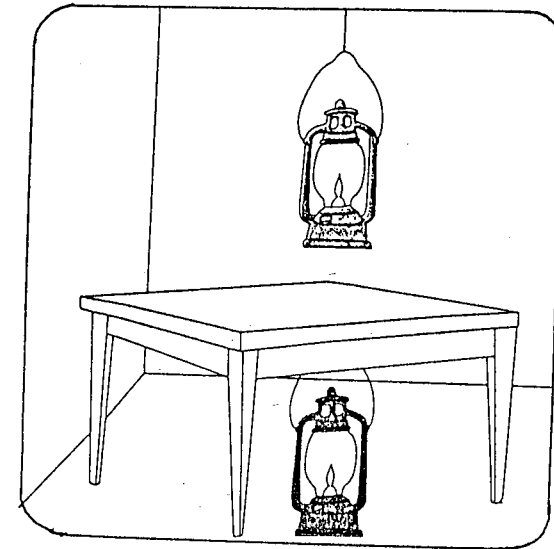
1. Nin taamasiyen in ke jabibi la min be tabali kan



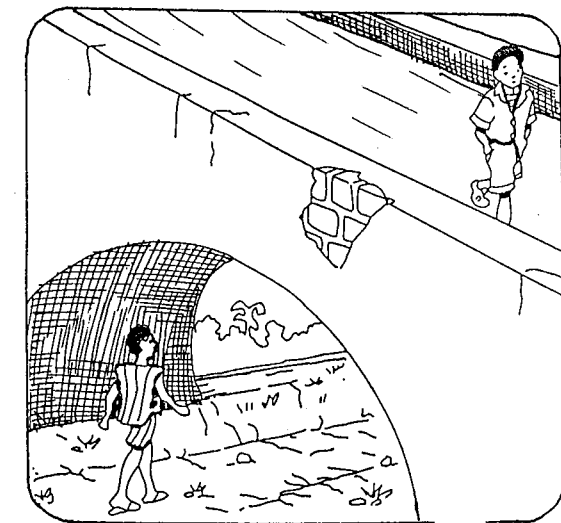
2. Nin taamasiyen in (x) ke kono kan min be jiri koro



3. Nin taamasiyen in (x) ke lanpan kan, min be tabali kunna



4. Ne bilenman ke denmisen na, min be nron koro



Sanfɛ, duguma, sanfɛla, dugumana

I.Kuntilenna : Kalansen laban na, kalanden ka kan ka se :

- Ka fɛnw sanfɛla n'ɔ dugumana dɔn k'ɔ jira.
- K'olu fɛn kelenw dugumafɛnw n'ɔ sanfɛfɛnw dɔn k'ɔ jira.

II.Baarakɛminɛnw : kalanso kɔnɔminɛnw

Baara kɛta 1 : A bɛ kɛ kuluw la kalanso kɔnɔ.

- Karamɔgɔ bɛ kalanso kɔnɔfɛn dɔw sanfɛla n'ɔ dugumana jira kalandenw na (walanba, fɔɔ, kalanso da...)
- Karamɔgɔ bɛ kalanso kɔnɔfɛn wɛrɛw kofɔ, k'a jini kuluw fɛ u k'olu sanfɛla n'ɔ dugumana jira (alamori, kogow, bataɕibara, jabaranin...)
- Karamɔgɔ b'a jini kalandenw fɛ u k'ɔ ka minɛn dɔw ta k'ɔ sanfɛla n'ɔ dugumana jira.

Baara kɛta 2 :

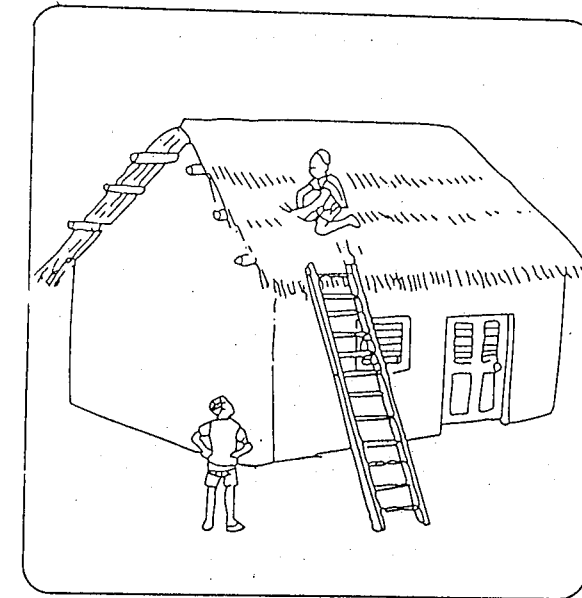
- Karamɔgɔ bɛ koori ni tangili dɔ dilan walanba kan sanfɛla la, ka kare ni kɛrɛsaba dilan walanba kan dugumana na.
- Karamɔgɔ b'a jini kalanden dɔw fɛ, u ka na koori ni kare jira k'ɔ dilanyɔrɔ kofɔ walanba kan.
- Karamɔgɔ b'a jini kalandenw fɛ, bɛɛ ka tile ja kɛ a ka walannin sanfɛla la, ka kalo ja kɛ a ka walannin dugumana na.

Baara kɛta 3 :

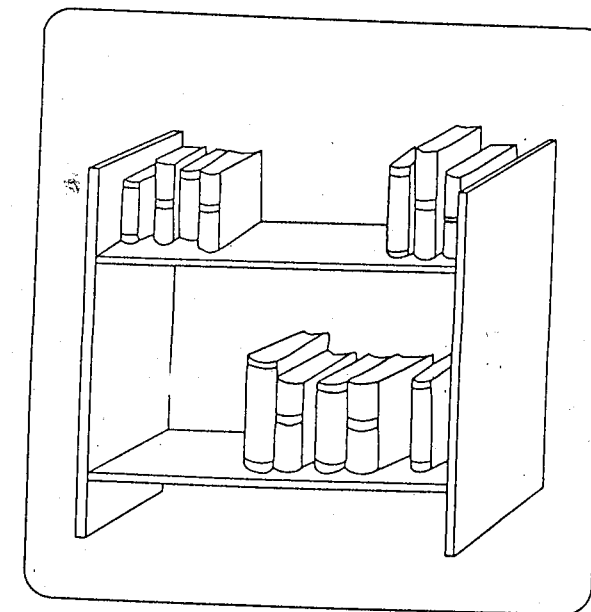
Karamɔgɔ bɛ kalandenw jiniƙa fɛn minnu bɛ sanfɛ (tile, kalo sankolo) ani fɛn minnu bɛ duguma (mɔgow baganw jiriw, kɔw...)

Degeliw

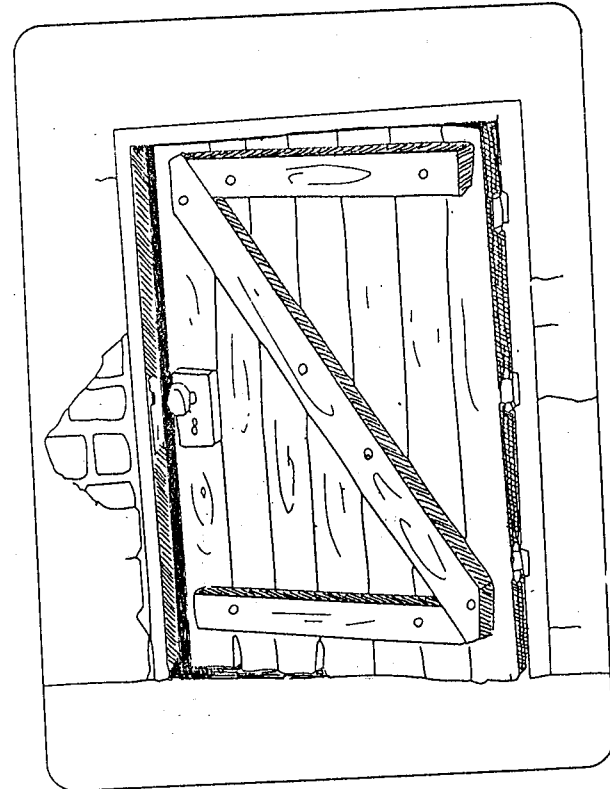
1.Nin taamasiyɛn in (x) kɛ denmisen kan min bɛ yɛlɛnyɛlɛnnan dugumana na.



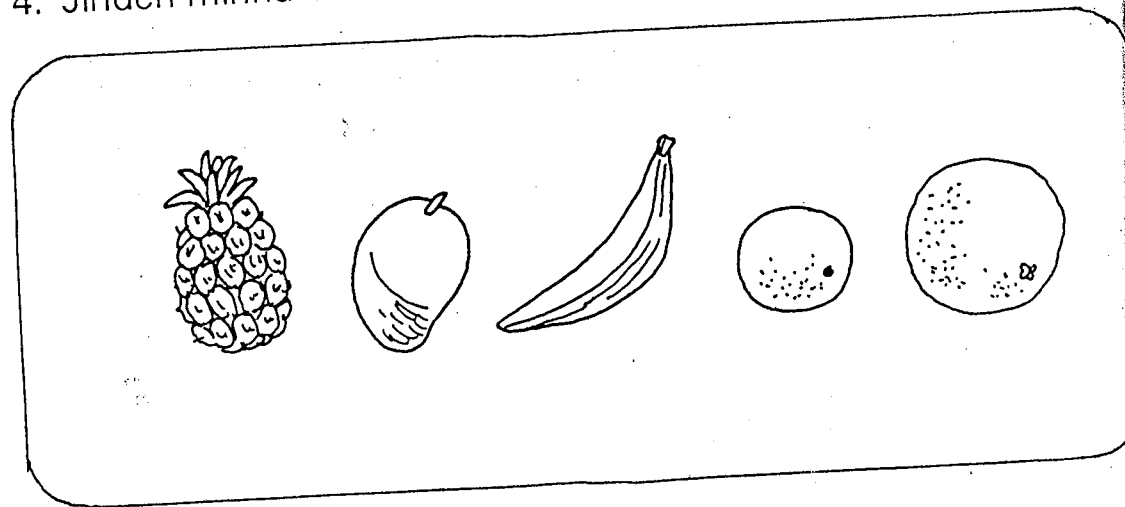
2.Ɓɛ bilɛnman kɛ gafɛw la minnu bɛ gafɛmarayɔrɔ sanfɛla la ka nɛrɛmuguma kɛ minnu bɛ a duguma.



3. Taamasiyen in (x) ke da sanfe, i ka nin (-) ke a duguma.

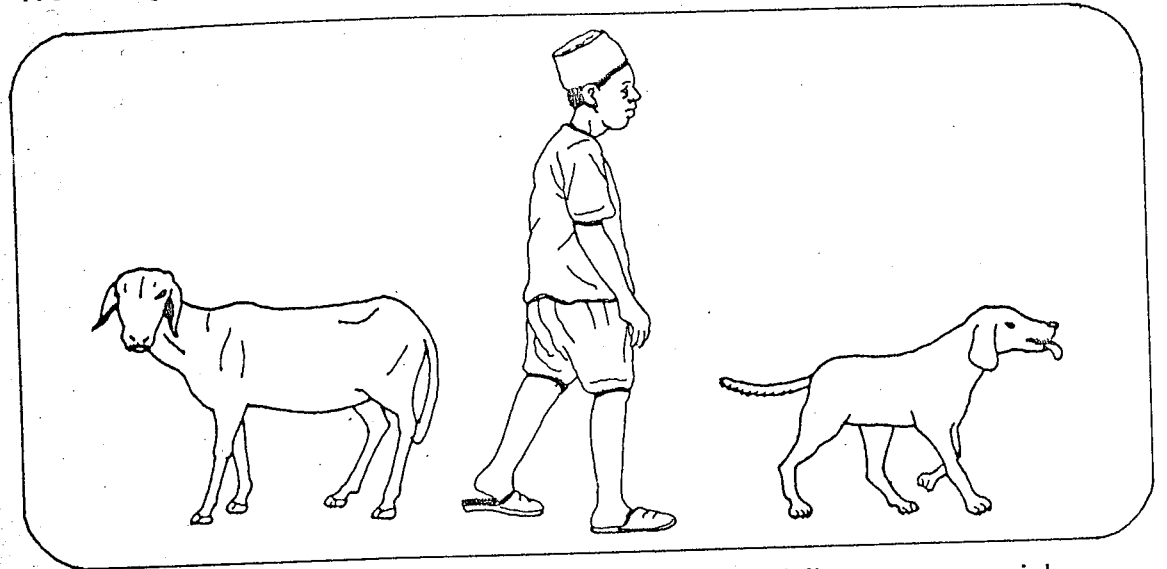


4. Jiriden minnu be namasa numanyanfan fe, olu koori.

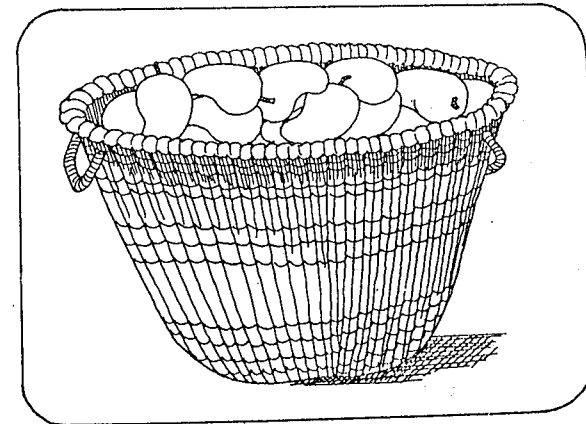


Seginkanni

1. Ce do jolen file. Mun b'a nefe?

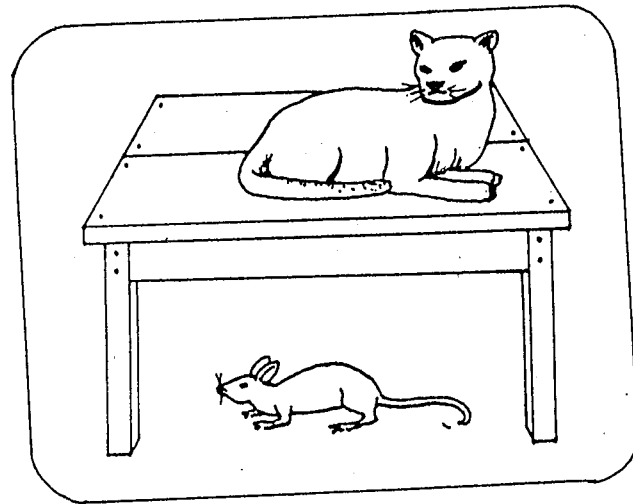


2. Segi do sigilen file. A konojiridenw ke ne bilenman ye, i ka fiiman k'a kakan.



3. Ninnu C jagonna dilan k'u dayele ka taa :
 - sanfe
 - duguma

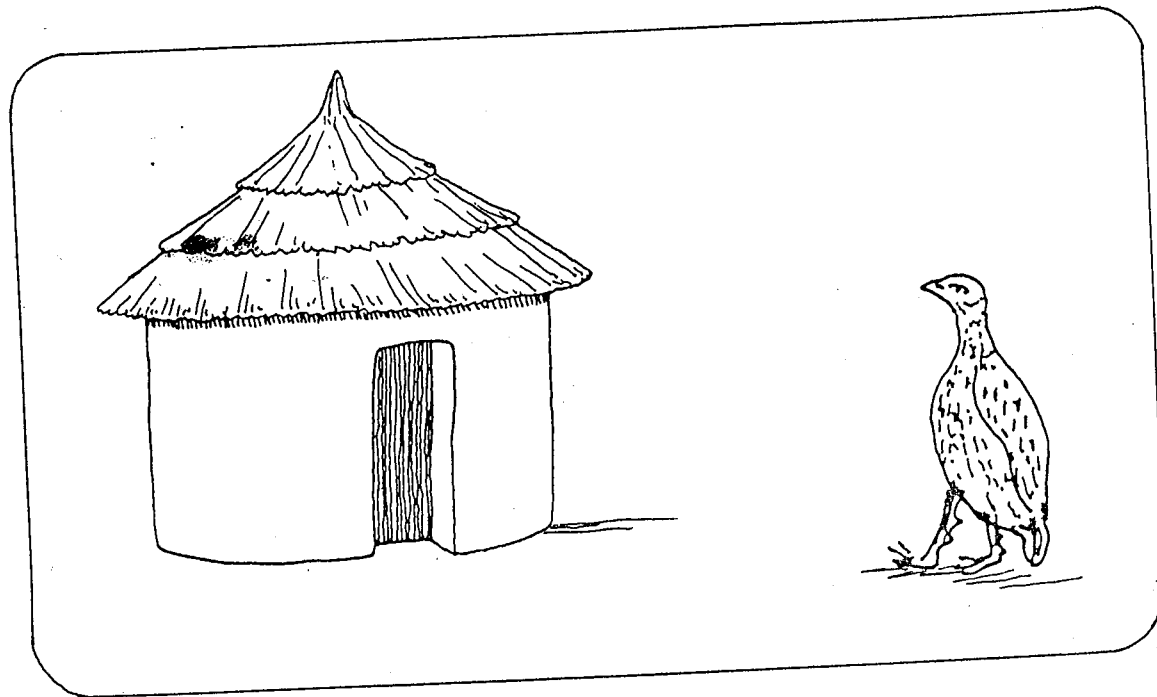
4. Mun be tabali kan ? Mun b'a koro ?



5. Tije wa nkalon

-Koro be so koro . T

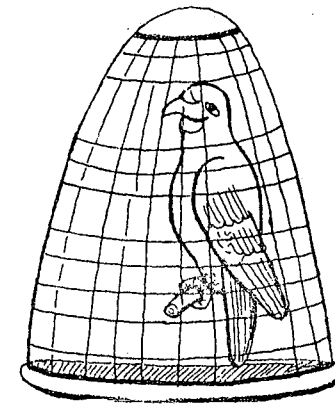
NK



6 - Solonin be sulu giriya silama kəkanna na

T

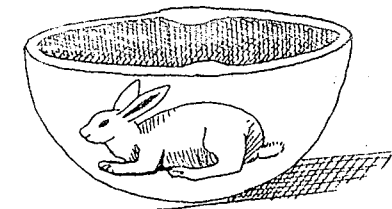
NK



7 - Sonsan ja be filen kəkanna na.

T

NK



Numan fe , Kinin fe

I.Kuntilemma : Kalansen in laban na, kalanden ka kan ka se :

- ka fen do bila a numan fe walima a kinin fe.
- K'a kininfefenw don ka bo a numanfefenw na.
- Ka fen do sigi fen were numan walima a kinin fe.
- Ka fen were numanfefen don ka bo a kininfefen na.

II.Baarakeminenw :

Kalandenw ani kalanso konominenw

III.Taasira :

Baara keta 1

Karamogo b'a jini kalanden kelenkelenna fe u ka fen do bila u numan fe, ka do bila u kinin fe.

Baara keta 2 :

Fen fila sigilen be pogon kerefe kalandenw jefefe, u b'a jira (k'a fo) min be kinin fe ani min be numan fe.

Baara keta 3 :

Fen fila jegenen be walanba kan, kalandenw b'a fo (jira) min be numan fe ani min be kinin fe.

Baara keta 4 :

Karamogo be kalandenw bila ka fen do bila fen were numan fe tabali kan.

Baara keta 5 :

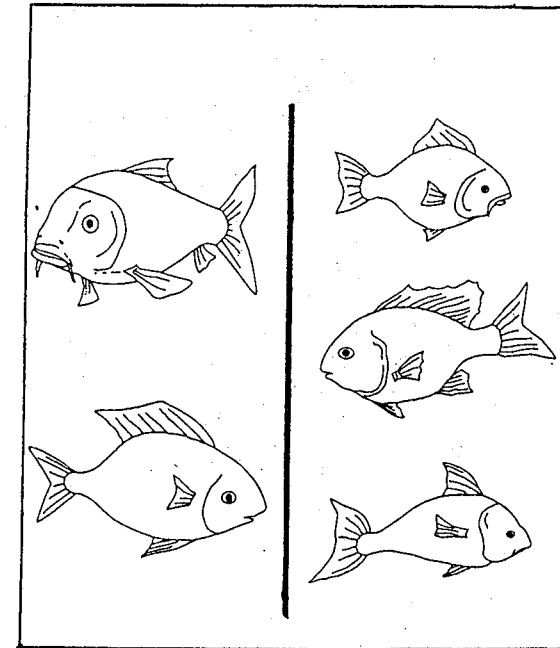
Karamogo be ci jolen ke walanba kan, k'a jini kalanden do fe a ka jegen do ke ci in numanyanfan walima a kininyanfan fe.

Janto : Karamogo be se ka baara keta werew di, minnu be tali ke kalandenw lamini kan.

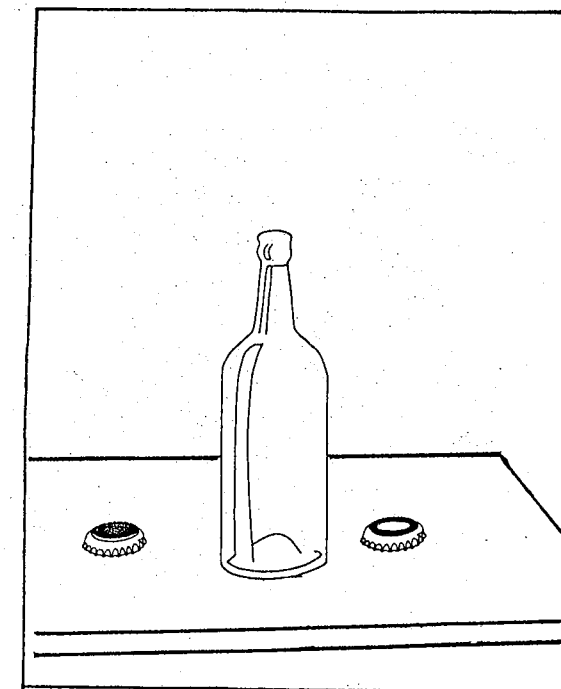
- *Karamogo be se ka farikolon do laben nin kalansen in kan.*

Degeliw :

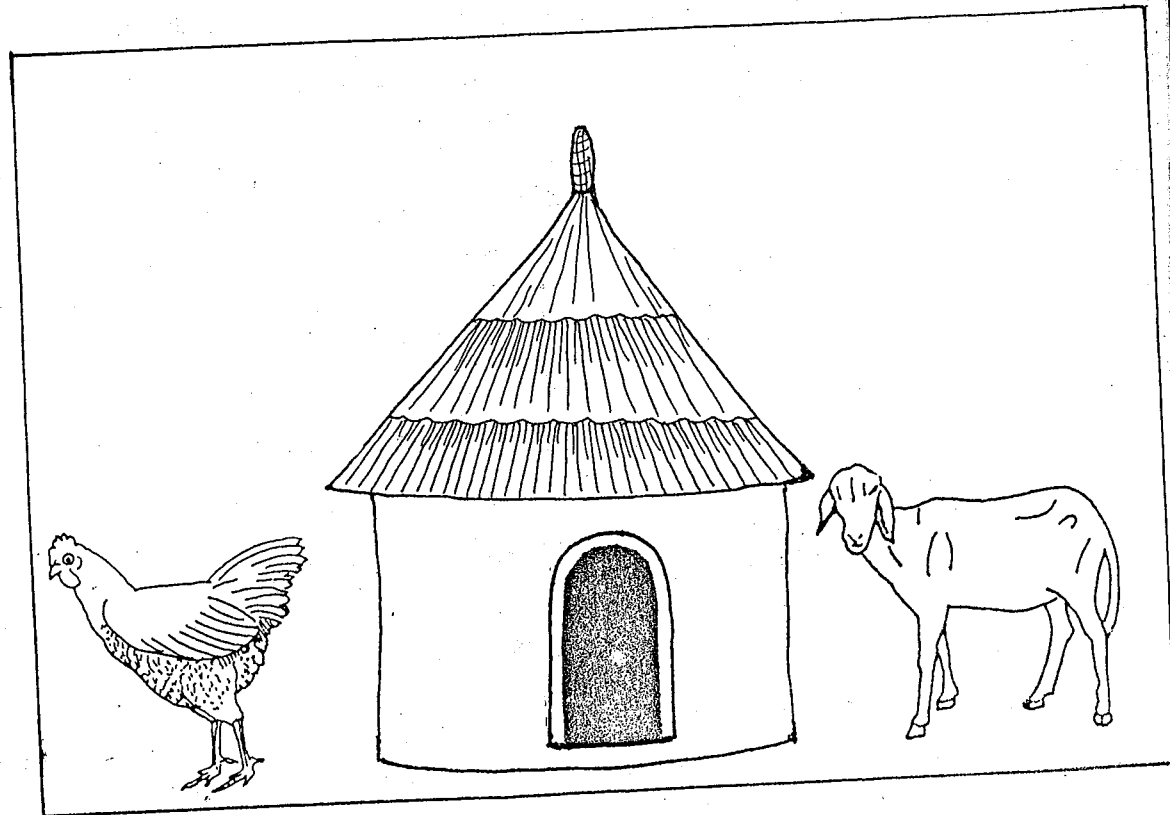
1. Jega minnu be ci jolen numanyanfan fe olu ke je bulama ye.



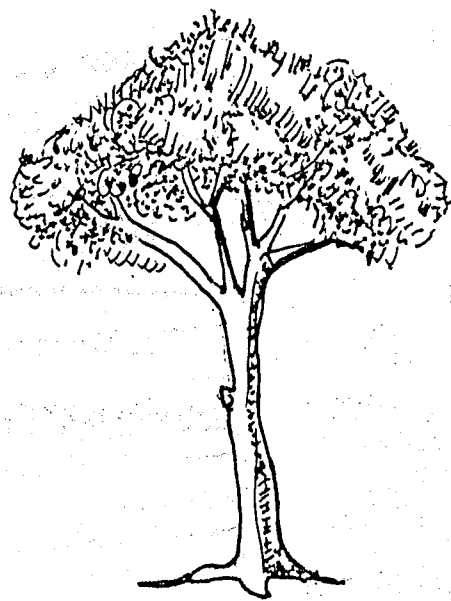
2. Nin taamasiyen in (+) ke datugulan kan, min be dunden kininyanfan fe.



3. Nin taamasiyen (x) ke bagan kan, min be buguso numanyanfan fe.



4. Ntola kelen ke jiri numanyanfan fe ka daga kelen ke a kininyanfan fe.



Ka jan a la – ka surun a la (kerefe)

I. Kuntilemma : Kalansen in laban na kalanden ka kan ka se :

- Ka fen do jira, min yoro ka jan a la walima min yoro ka surun a la.
- K'i yoro surunya fen do la, k'i yorojanya fen do la.
- Ka fen do sigi a kerefe, ka do sigi k'o yoro janya a la
- Ka fen do jira, min be fen were kerefe walima min yoro ka jan o la.
- Ka fen do sigi fen were kerefe walima k'a yoro janya o la.

II. Baarakeminew :

Kalandenw ni kalanso konominenw

III. Taasira :

Baara keta 1

Karamogo be kalanden fila sugandi, ka kelen jo a kerefe, ka to kelen mabo a la. Kalandenw b'a fo: « Madu ka surun karamogo la, Fanta ka jan a la. »

Baara keta 2 :

Karamogo b'a jini kalanden do fe a ka sebennikelan do bil'a kerefe ka walanni yoro janya a la.

Kalanden be soro k'a fo: « Sebennikelan be n kerefe, walanni yoro ka jan n na.

Baara keta 3 :

Karamogo b'i sogere walanba la, kalanden do b'a fo karamogo be walanba kerefe. A be tila k'i sobo a la, kalanden were b'a fo karamogo yoro ka jan walanba la.

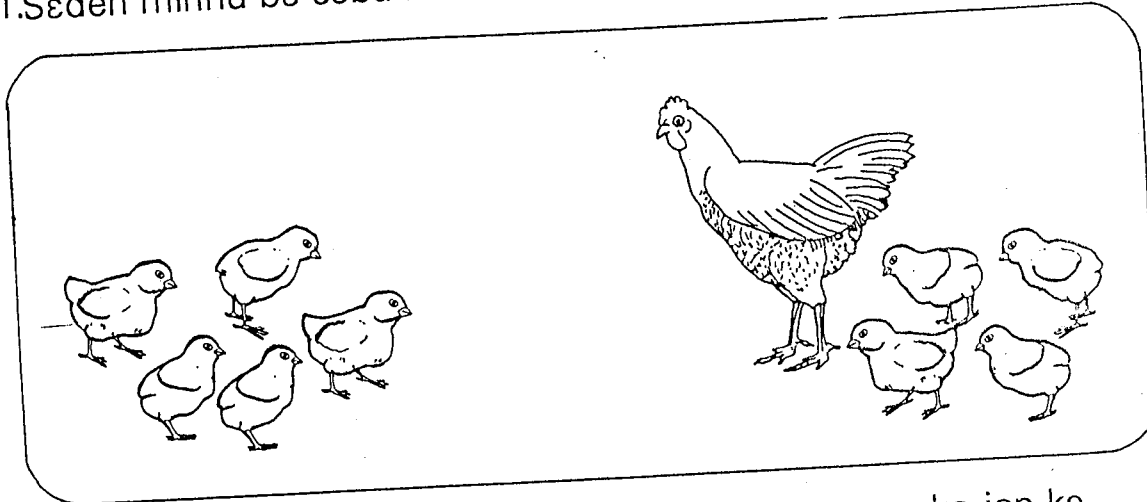
Baara keta 4 :

Karamogo b'a jini kalandenw fe u ka duguw ni kin dow fo minnu yoro ka surun walima u yoro ka jan u ka duguw ni kinw na.

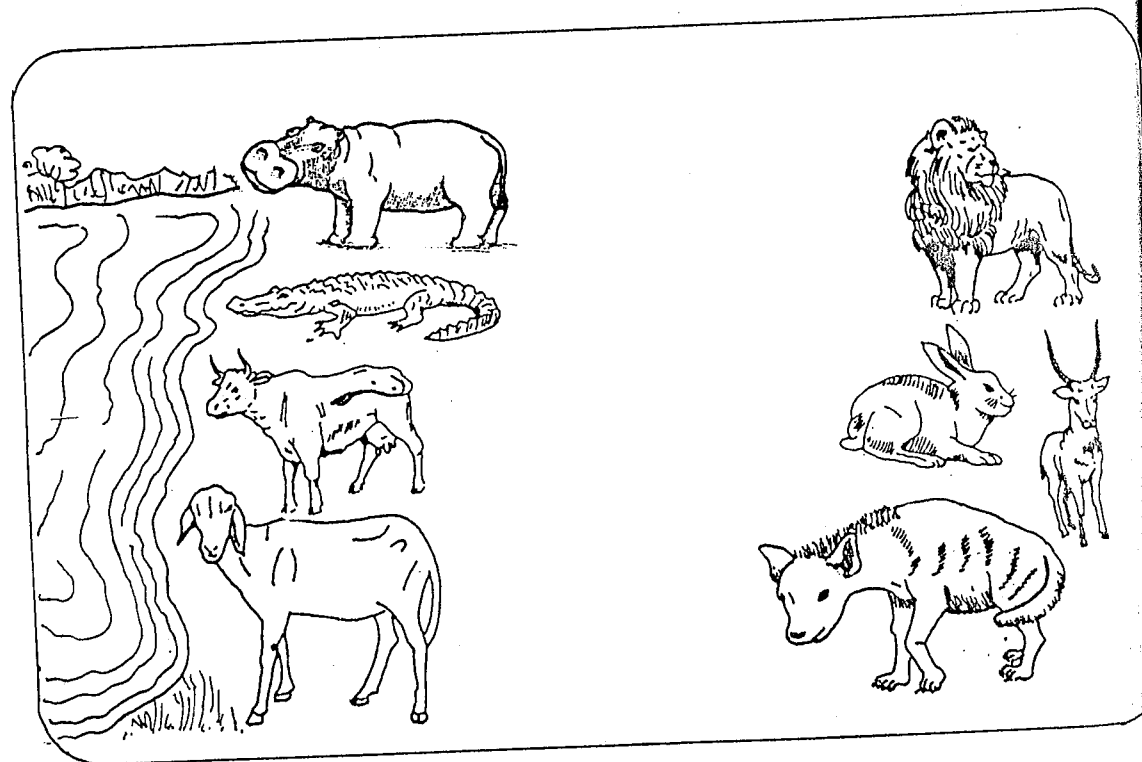
Baara keta 5 :
Kalandenw yere be wale suguya were caman ke, karamogo
b'u bilasira.

Degeliw

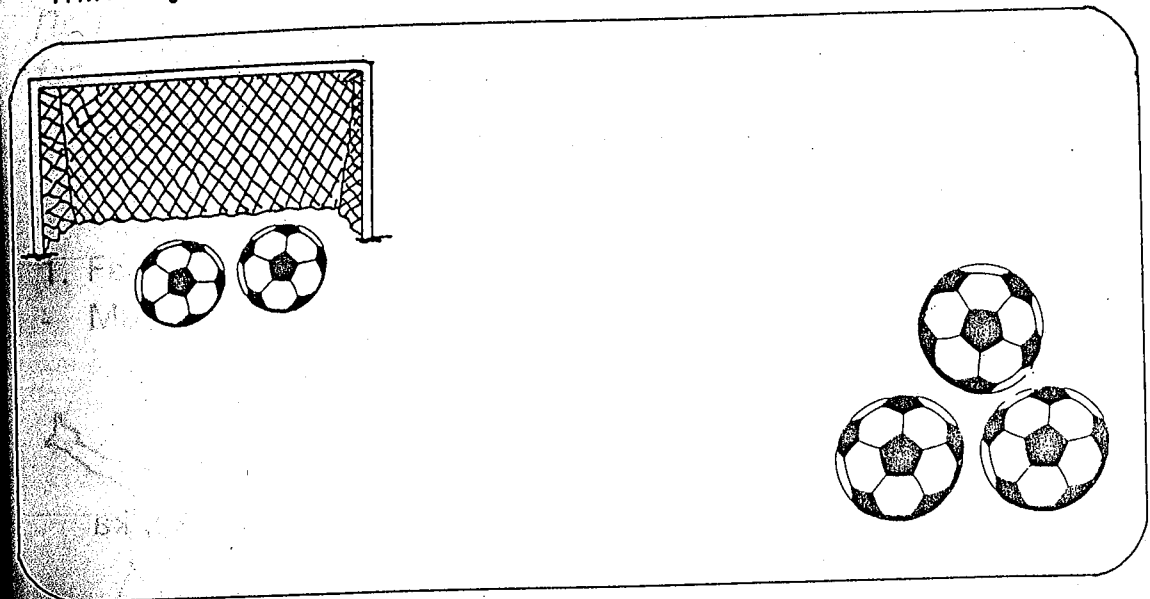
1. Seden minnu be saba kerufe, olu lakoori



2. Nin taamasiyen in (x) ke baganw kan, minnu yoro ka jan ko
la.

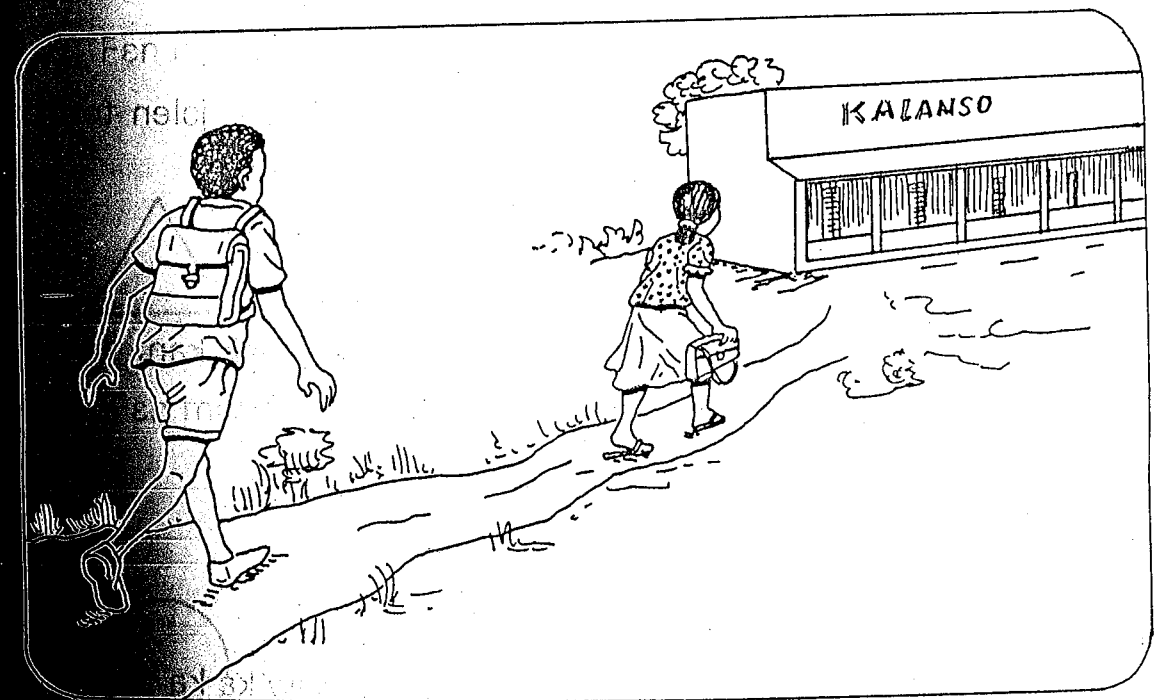


3. Ntola minnu yoro ka surun jo la, olu ke ne bilenman ye,
minnu yoro ka jan, olu ke ne finman ye.



4. Tije wa nkalon (T, NK)

Camannin yoro ka surun kalanso la T Nk



Ɔɛ - kɔ

I. Kunntilenna : Kalansen laban na, kalanden ka kan ka se :

- ka Ɔɛn dɔ walima hadamaden dɔ sigiyɔɔ dɔn ka da Ɔɛn wɛɛ walima hadamaden wɛɛ ta kan, a Ɔɔɔn sigi-sigilenw ɔɛ la.
- ka Ɔɛn dɔ sigi a Ɔɔɔnna dɔ Ɔɛɛ walima a kɔɛ Ɔɛnkulu sigi - sigilenw ɔɛ la.

II. Baarakɛminɛnw : Kalanso kɔnɔminɛnw, kalandenw

III. Taasira :

Baara kɛta 1 : Karamɔɔ bɛ kalanden tan (10) laɔ Ɔɔɔn kɔ, ka Ɔɛninkali kɛ :

- kalanden min bɛ min Ɔɛ ,
- kalanden min bɛ min kɔ,
- kalanden tɛ min Ɔɛ,
- kalanden tɛ min kɔ.

Baara kɛta 2 :

- Kalanden tan (10) ninnu b'ɔ Ɔɛsinyɔɔ yɛɛma k'ɔ jɔɛn to Ɔɔɔn kɔ. Karamɔɔ bɛ Ɔɛninkali kɛ :
- Sisan, min bɛ min Ɔɛ, min bɛ min kɔ.

Baara kɛta 3 :

Karamɔɔ bɛ minɛn dɔw sigi - sigi Ɔɔɔn kɔ tabali kan, ka taafan-jira, ka minɛn kɛɛn sugandi ka Ɔɛninkali kɛ :

- minɛn min b'ɔ kɔ
- minɛn min b'ɔ Ɔɛ

Karamɔɔ bɛ misali caman di baara in kan.

Baara kɛta 4 :

Karamɔɔ bɛ kɛɛsabaw, kooriw, tangiliw ni kɛɛw kɛ ka tugu Ɔɔɔn kɔ, ka dɔw Ɔɛ kɛ bɛɛɛnman, Ɔɔɔjima walima bulamaw yɛ. A bɛ taafan jira ka sɔɔ ka Ɔɛninkali kɛ :

- Sawura min bɛ min Ɔɛ

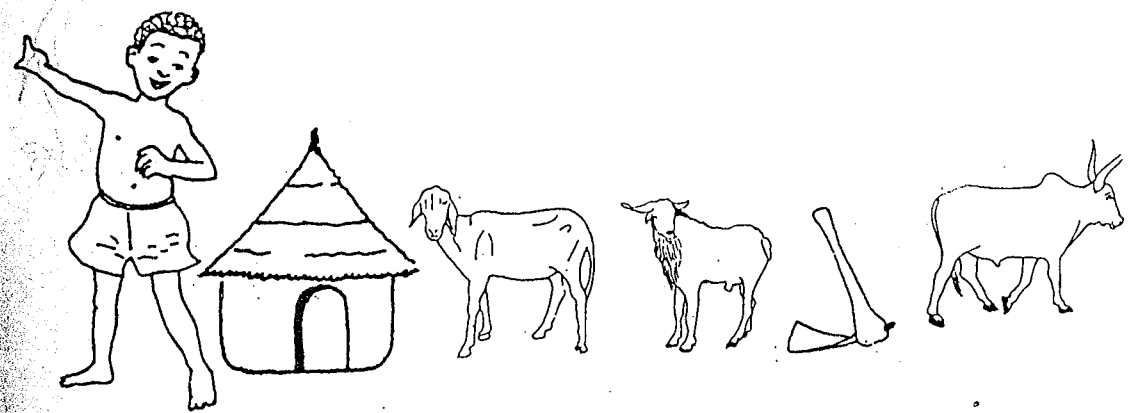
- Sawura min bɛ min kɔ.

Kalɛsili :

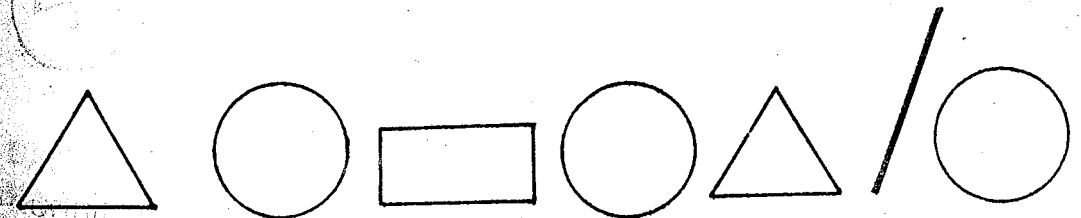
Ɔɛ ni kɔ bɛ sigiƆɔɔnka jira yan kɛɛ kan, u bɛ se fana ka Ɔɔɔnka jira waati kɔnɔ.

Degeliw :

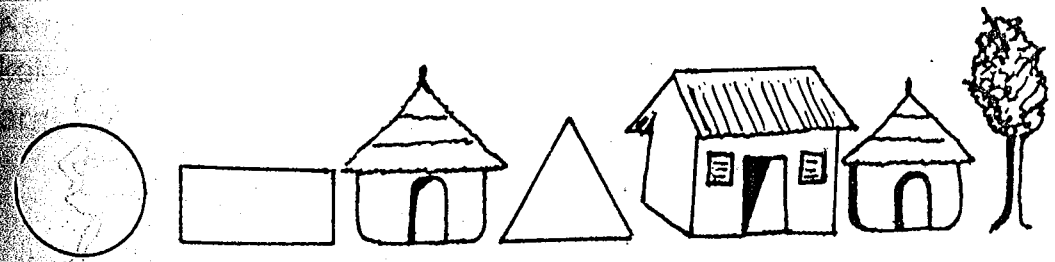
1. Ɔɛnw ja laɛ, ka sɔɔ ka Ɔɛninkaliw jaabi
- Mun bɛ buguso Ɔɛ ? Mun b'a kɔ ?



2. Ɔɛn min bɛ tangili Ɔɛ, nin taamasiyɛn (+) k'ɔ kɔnɔ.

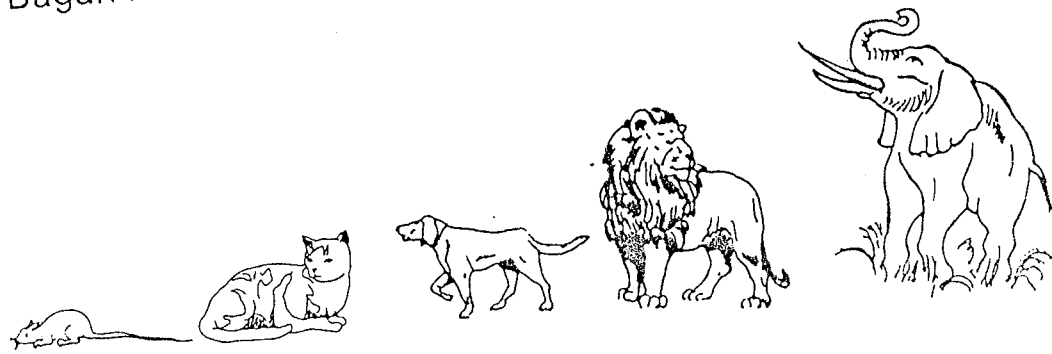


3. Ɔɛn min bɛ kɛɛsababa kɔ, nin taamasivɛn (+) k'ɔ kɔnɔ.

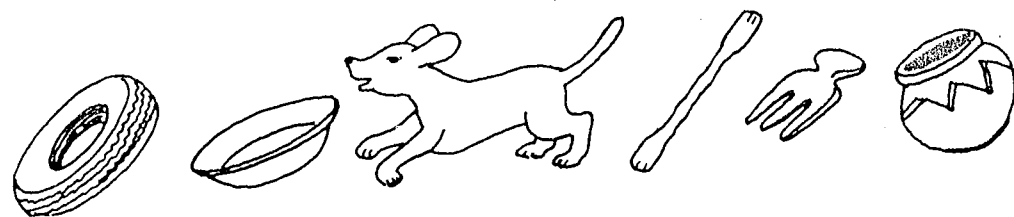


4. Nin fenw sigi jɔgɔn kɔ :
- tangili bɛ kɛrɛsaba jɛ
 - tangili bɛ koori kɔ
 - ci jɛngɛnnɛn bɛ kɛrɛsaba kɔ

5. Bagan min bɛ waraba kɔ o tɔgɔ fɔ.



6 - Fɛn minnu bɛ wulu jɛ, nin taamasiyɛn (+) kɛ olu kan.



7. Nin taamasiyɛn (+) kɛ musomanninw kan minnu bɛ musomannin bolokɔrtalɛn kɔ.



Cɛ / Ni jɔgɔn cɛ

I. Kunntilenna : Kalansɛn laban na, kalandɛn ka kan ka sɛ :

- ka don mɔgɔ fila ni jɔgɔn cɛ, walima mɔgɔ dɔ ni fɛn dɔ cɛ,
- ka fɛn dɔ bila fɛn fila ni jɔgɔn cɛ,
- Walima ka fɛn dɔ jɔyɔrɔ jira fɛn fila wɛrɛ ni jɔgɔn cɛ.

II. Baarakɛminɛnw :

Kalanso, kɔnɔminɛnw, kalandɛnw...

Baara kɛta 1 :

Karamɔgɔ bɛ cɛmannin fila (2) ani musomannin kɛlɛn (1) wele k'ɔ jɔ jɔgɔn kɔ nin cogo in na : Cɛmannin kɛlɛn, musomannin kɛlɛn, cɛmannin kɛlɛn.

Karamɔgɔ bɛ jininkali kɛ musomannin jɔyɔrɔ la.

Karamɔgɔ bɛ nin baara in jɔgɔn kɛ ni kalandɛn wɛrɛw yɛ.

Baara kɛta 2 :

Karamɔgɔ bɛ kalandɛn fila wele ka na walanba la, k'i jɔ u fila ni jɔgɔn cɛ, ka sɔrɔ ka jininkali kɛ a yɛrɛ jɔyɔrɔ la kalandɛnw ni jɔgɔn cɛ.

Baara kɛta 3 :

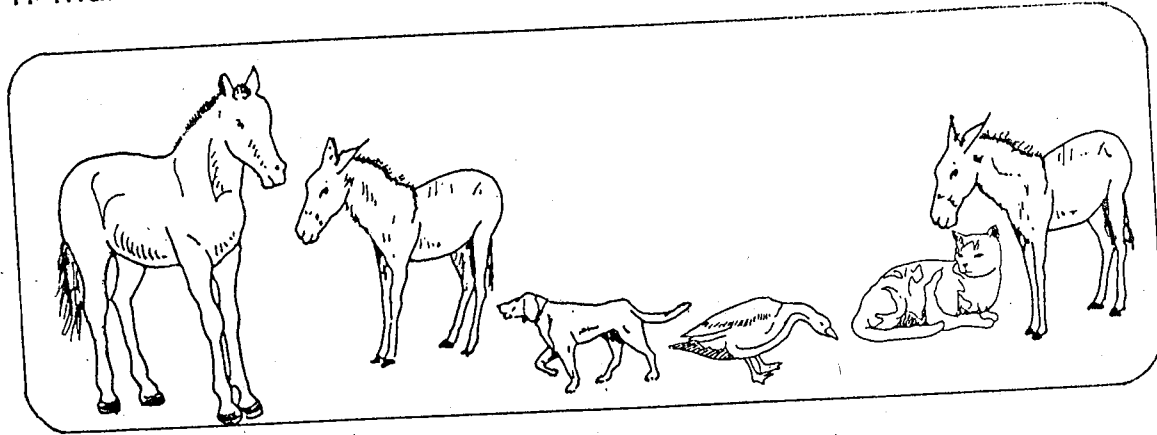
Karamɔgɔ bɛ koori 4 ci jɔgɔn nɔfɛ walanba kan, ka kalandɛnw bila ka tangili ci olu ni jɔgɔn cɛ.

Baara kɛta 4 :

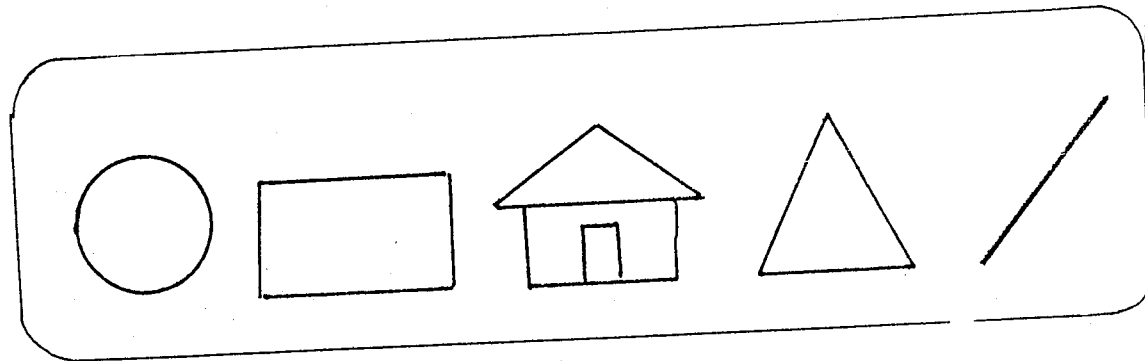
Karamɔgɔ bɛ sɛ ka misali wɛrɛw ta kalanso kɔnɔ ani kalanso kɔkan (dugu dɔ bɛ dugu fila ni jɔgɔn cɛ ; tarata bɛ ntɛnɛn ni araba cɛ ...)

Degeliw

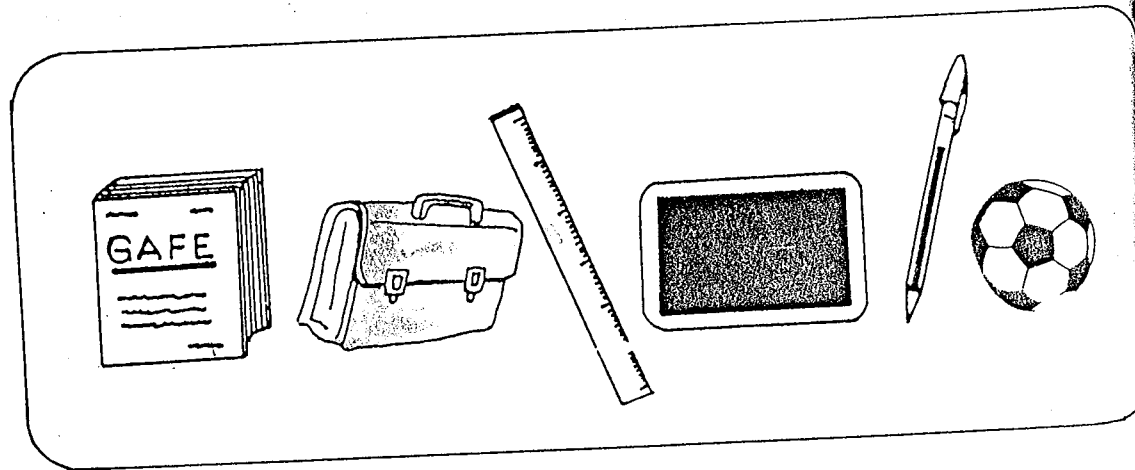
1. Mun be fali ni kono ce?



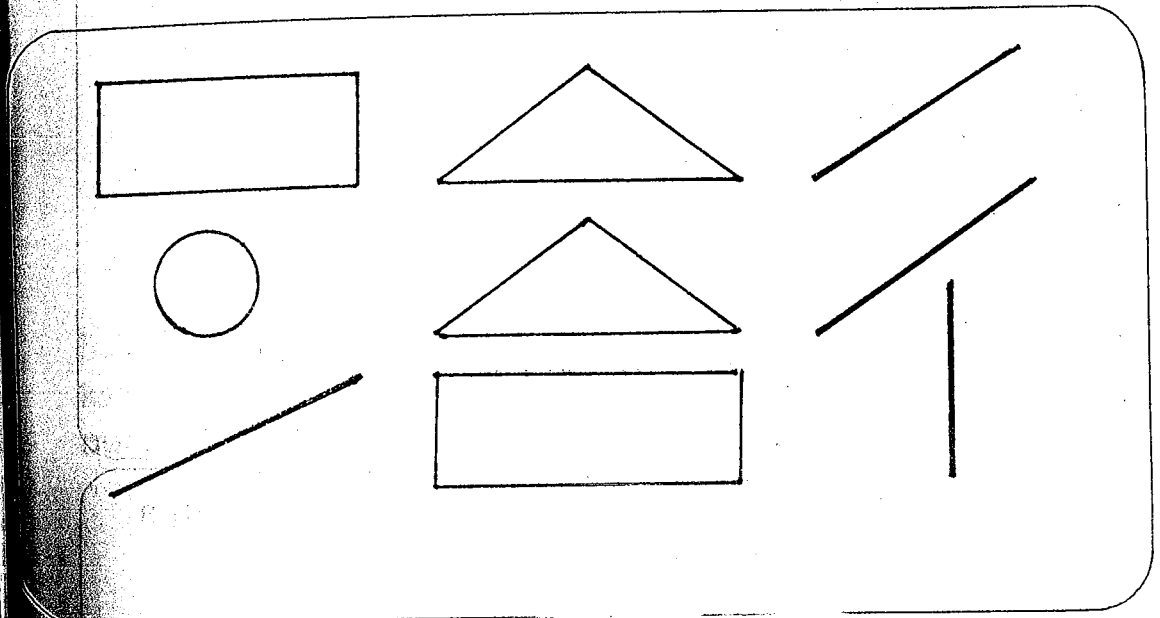
2. Fen min be tangili ni keresaba ce, tiiri k'o kan



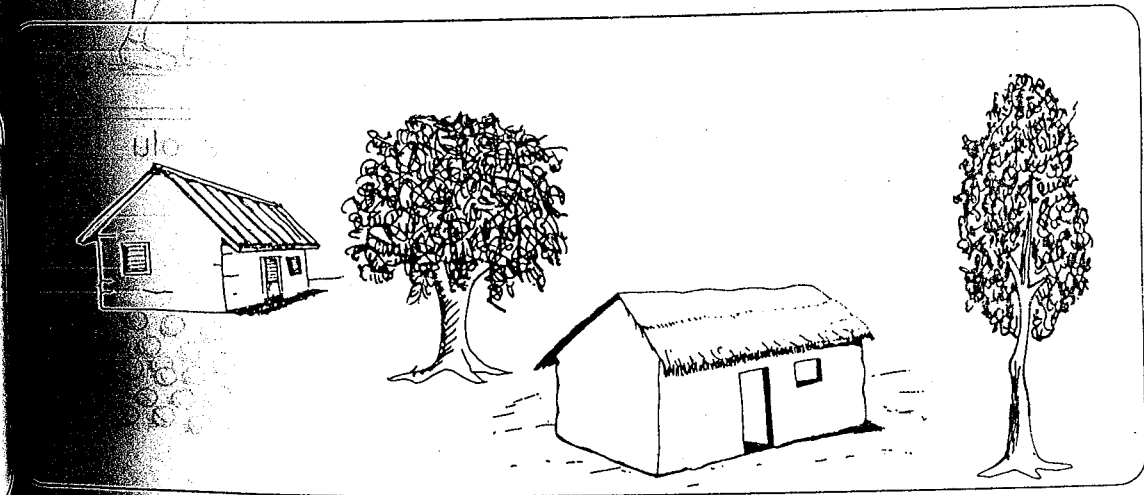
3. Mun be gafe ni cilan ni nagon ce?



4. Jaw dilan cogo la min b'a to :
 tangili be ke keresaba ni ci jengennen ni nagon ce
 koori be ke keresaba ni ci jengennen ni nagon ce
 Ci jengennen be ke tangili ni ci jolen ni nagon ce.

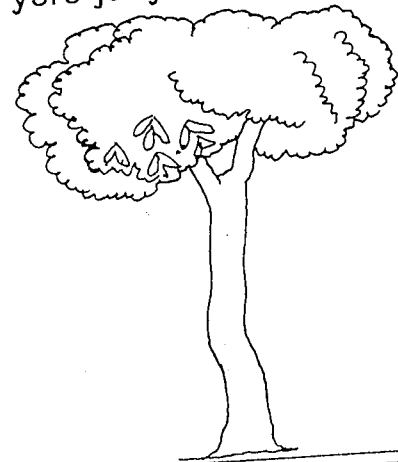


5. So min be jiriw ni nagon ce je bulama k'o la, i ka nin taamasiyen (x) ke jiri kan min be sow ni nagon ce.



Seginkanni :

1. Nin jirisun in file : daga dilan a kerefe, ka ntola dilan ka yoro janya a la.



2. Karamoƙo ni kalanden fila file : kalanden min yoro ka jan a la taamasiyen in (+) k'o kan.



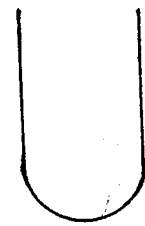
3. Bikise minnu be dingɛ kerefe, nin taamasiyen (x) ke olu kan, minnu yoro ka jan, olu ke ne binkenema ye.



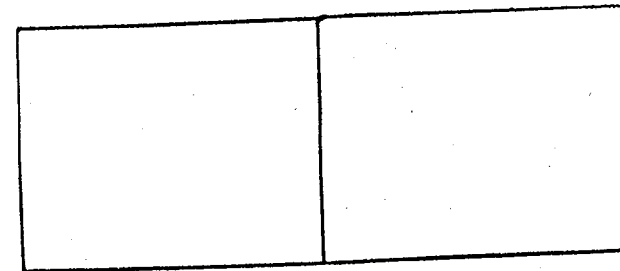
4. Kala in file ; a jooƙonna do ci k'o jengen ka taa numanyanfan fe, do were ci i k'o jengen ka taa kininyanfan fe.



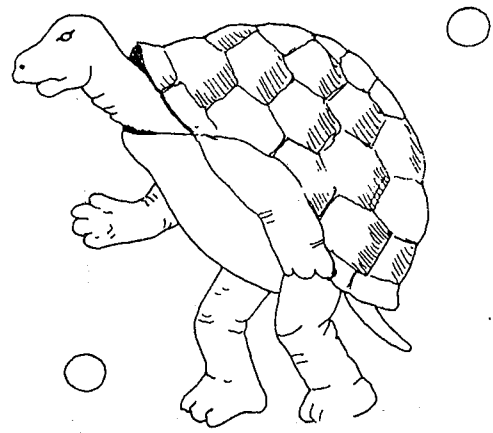
5. Filen sigilen file, filen were dilan, min dayelelen be ka taa kininyanfan fe, do were dilan min dayelelen be ka taa numanyanfan fe.



6. Walamba numanyanfan ke ne jugujima ye ka kininyanfan ke ne bilenman ye.



7. Koori min be koorokaara kofe o ke ni je bilenman ye.

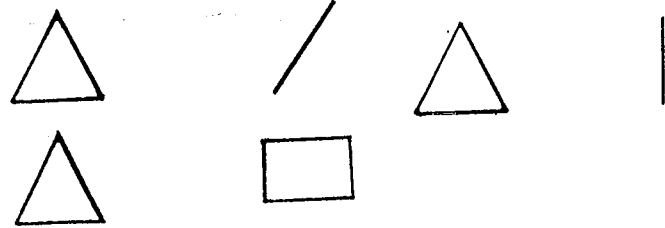


8. Tiiri fila ci denmisen in nefe.

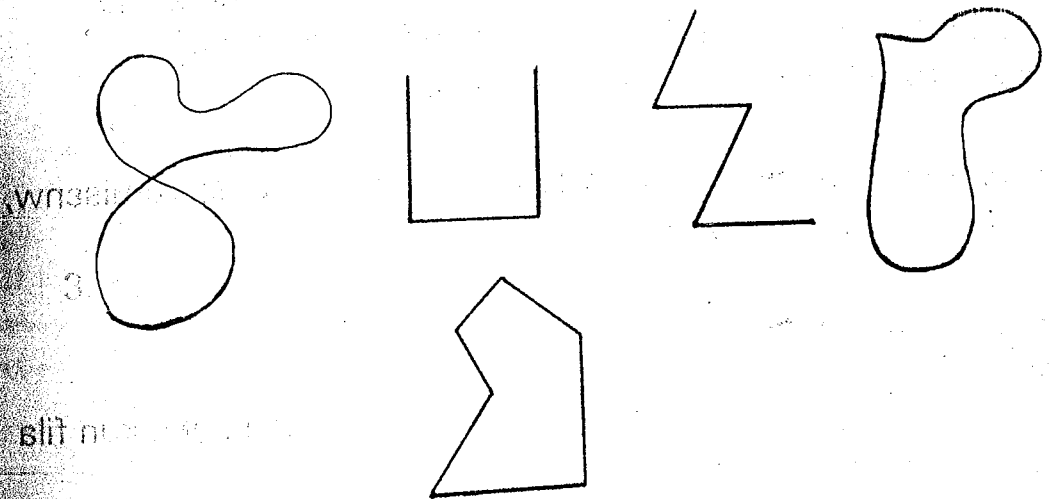


9. Jaw dilan cogo la min b'a to :

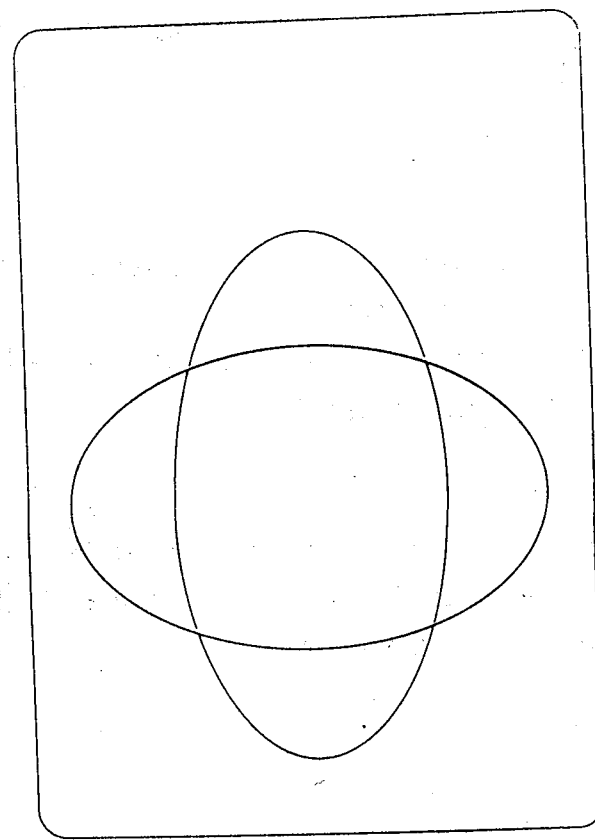
- keresaba be ci jegennen je
- keresaba be tangili ko
- ci jegennen be keresaba ni ci jolen ni jagon ce



10. Nin taamasiyen (+) ke ci datugulenw jukoro, ka nin taamasiyen (-) ke ci dayelelenw koro.



11. Koori kalansolen fila file walanba kan Taamasiyen do ke min be koori bulama kono nk'a be bilenman kakan.



Ci dayeɓeɓen . Ci datugulen.

I. Kuntilenna : Kalansen laban na, kalanden ka kan ka se :

- Ka ci dayeɓeɓen faranfasiya ka bo ci datugulen na.
- Ka ci dayeɓeɓen ni ci datugulen waleya.

II. Baarakeminenw : Jurumisenw, gaariw, negejurumisenw, kononkisenw ani fen werew.

III. Taasira

Baara keta 1

Karamogo be kononkise kelen tonnen jira gaari la min kun fila sirilen don jagon na.

- A be jininkali ke ni kononkise be se ka bo gaari la.
- Karamogo be gaari tigina ke walanba kan. A be jira k'a datugulen don (ci datugulen)

Baara keta 2 :

Karamogo be gaari in ta tugun k'a dayeɓe ka soro ka jininkali ke ni kononkise be se ka bo.
Karamogo be gaari tigina ke walanba kan. A be jira k'a dayeɓeɓen don (ci dayeɓeɓen)

Baara keta 3 :

Karamogo be kalandenw jininkali u ka ci dayeɓeɓenw ni ci datugulenw togow di misali la u ka sigida la (palan talanw, dolenkise, woloso, mobilisen...)

Degeliw :

1. Ci dayeɓeɓen saba dilan walannin kan

2. Ci datugulen naani dilan walannin kan.

3. Nin ci dayeɓeɓenw dilan :

Walan

werew

- Ci dayeɓeɓen ka taa kinin fe.

III. Taasira

- Ci dayeɓeɓen ka taa numan fe.

Baara

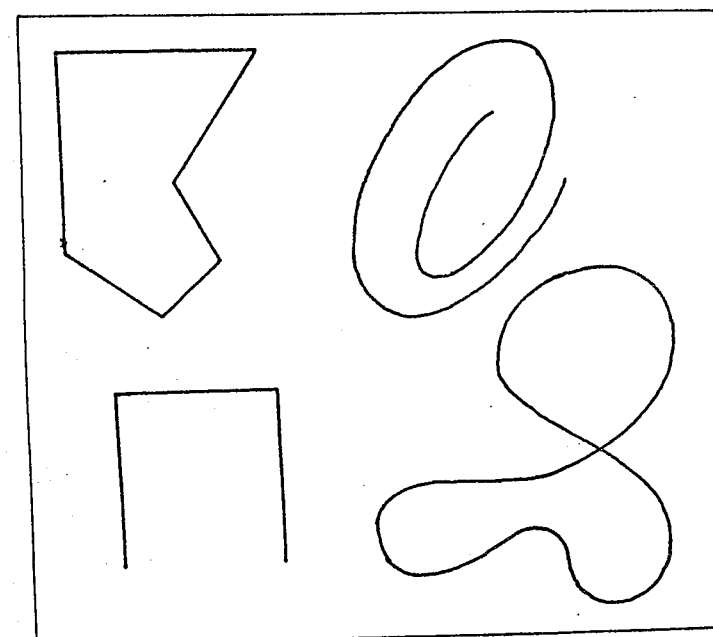
karamo

4. Nin ci dayeɓeɓenw dilan :

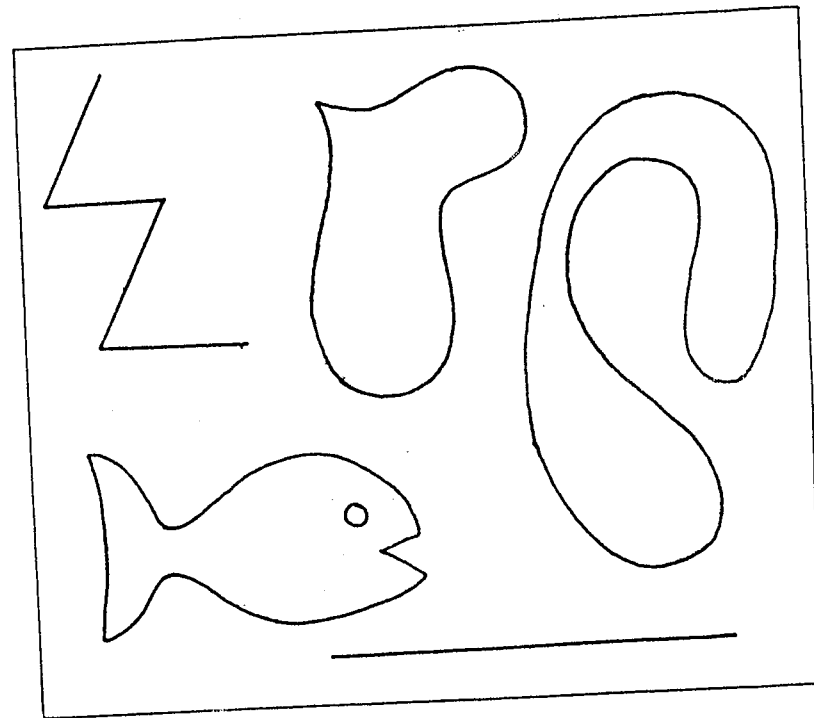
- Ci dayeɓeɓen ka taa sanfe.

- Ci dayeɓeɓen ka taa duguma.

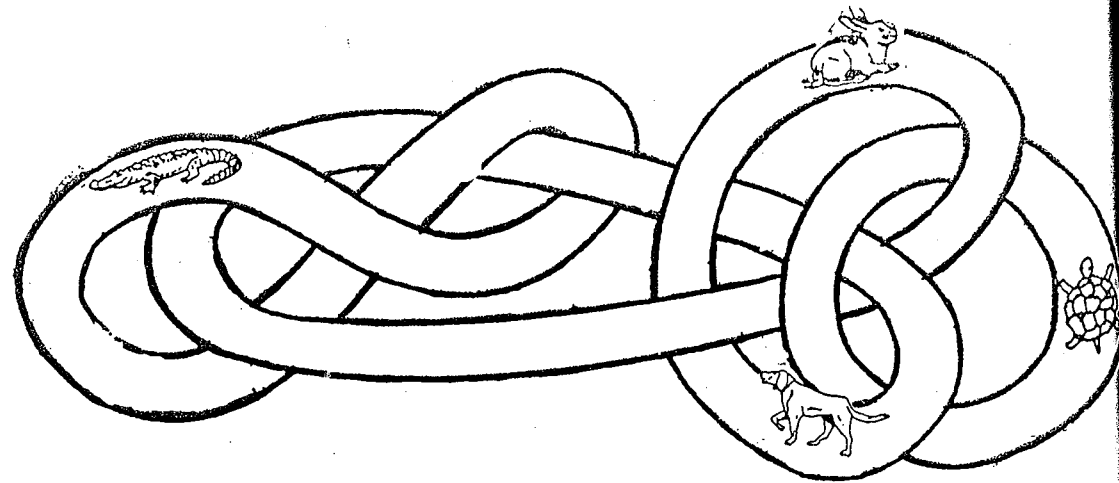
5. Nin taamasiyen (x) ke ci dayeɓeɓenw kan :



6. Nin taamasiyen (+) ke ci datugulenw kono.



7. Sonsannin ka sira ke ne bilenman ye, ka koorokaara ta ke bulama ye.



Ɔegenw – kono

I. **Kuntifenna** : Kalansen in laban na, kalanden ka kan-ka se :

- ka Ɔegenw dilanni dege ;
- ka Ɔegen dow dafa
- ka kono dilanni dege
- ka kono dow dafa.

II. **Baarakeminenw** :

Walanninw, farasu, kiriyon nemaw, sebenfura, kariton ani fen werew.

III. **Taasira** :

Baara keta 1

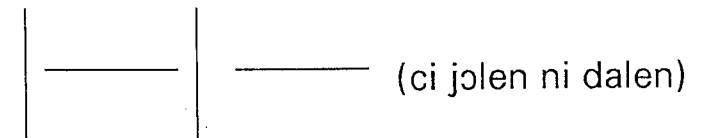
Karamogo be Ɔegen dow ke walanba kan ni tomi ni tiiriw ye.

Kalandenw b'olu Ɔogona caman ke u ka walanninw kan k'a soro yelama ma don u kecogo la.

N'u ser'o la, dow be na walanba la ka Ɔegenw dafa.

Segin be ke wale ninu kan ni Ɔegen werew ye.

Misali :



Baara keta 2

Karamogo be kono fila ke walanba kan.

Ɔe suguya kelen be ke folo soden dow kono.

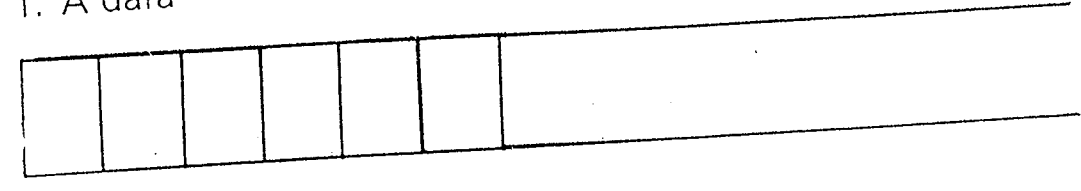
A be jini kalandenw fe u ka n'o ne Ɔogon ke kono filanan soden dow kono kono folo ta cogo la..

Segin be ke nin wale in kan ni kono werew ye .

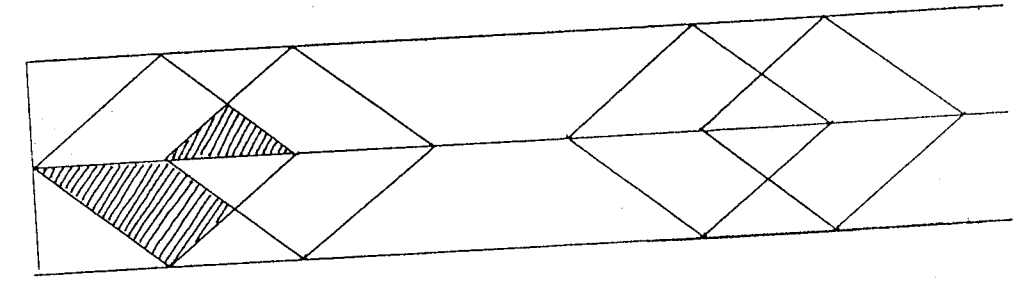
Ƴe suguya wɛrɛw bɛ di kulu kelen-kelen bɛɛ ma. U bɛ kɔnci dilen ɲɔɔn dilan walannin kan.

Degeliw :

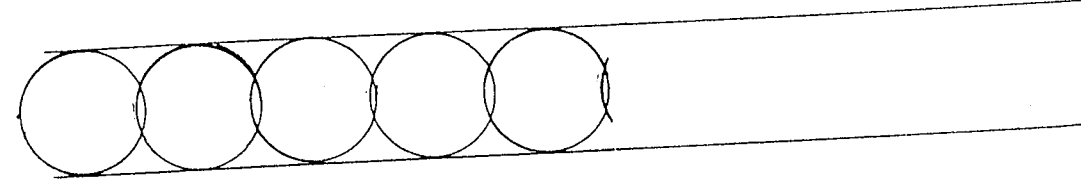
1. A dafa



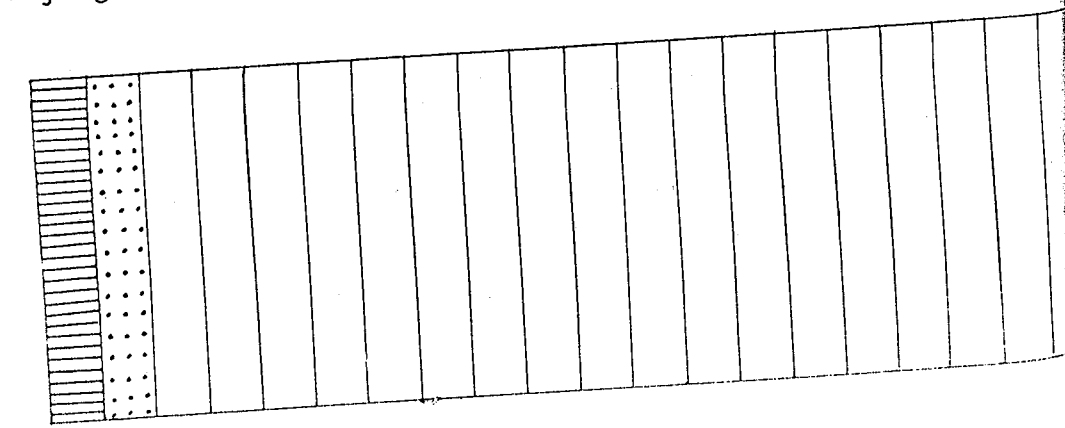
2. Ƴegen folo laje i ka ɲe ke filanan na



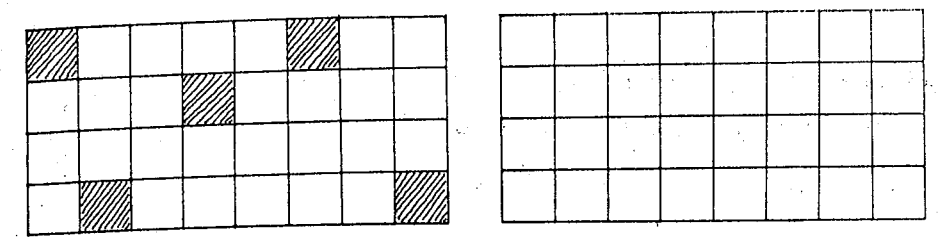
3. A to dafa.



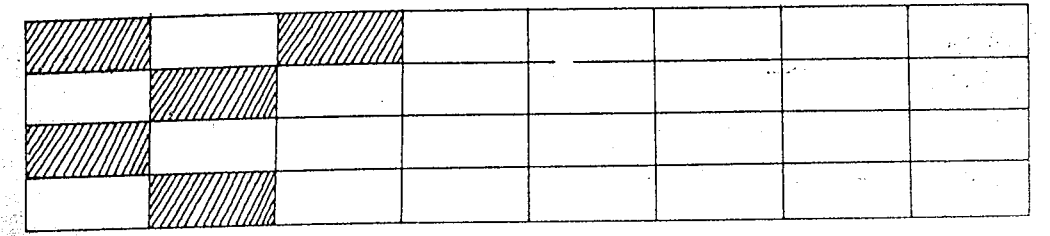
4. Ƴegen in sogin ni ci dalenw ni tomiw ye.



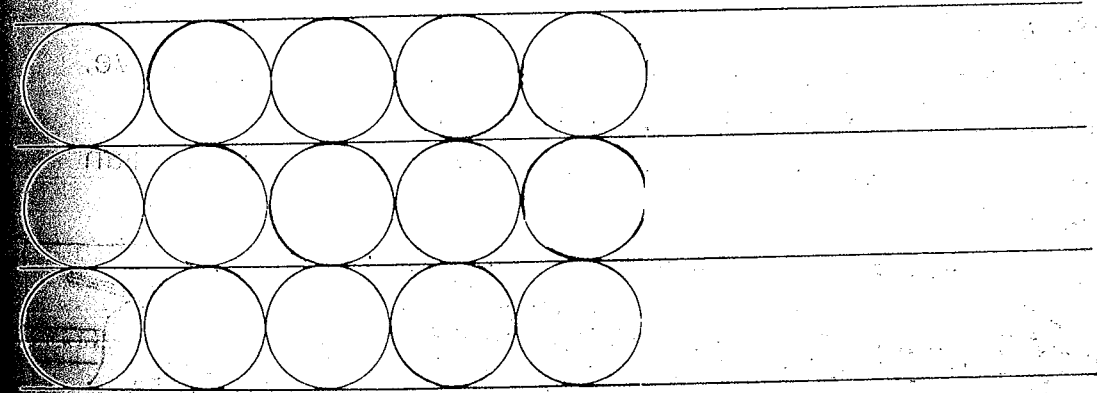
5. Kɔnci folo laje, i ka filanan ke ten



6. nin to lase.



7. Kɔnci in to dafa



Kalɔsili : A ɲininen bɛ karamogo fe a yere ka ɲegenw ni kɔnciw caman ke ni kalandenw ye, ka d'a kan kalansen in kuntaala ye san bɛɛ ye.

Tiirici

I Kuntilemma : Kalansen in laban na, kalanden ka kan ka se :
 - ka ci do ke n'a bolo ye (cilan te ta)
 - ka tiiri tilennen do ci ni tiiricilan ye.

II. Baarakeminɛnw : farasu, walannin, tiiricilan, kiriyon ani fen wɛrɛw.

III. Taasira :

Baara kɛta 1.

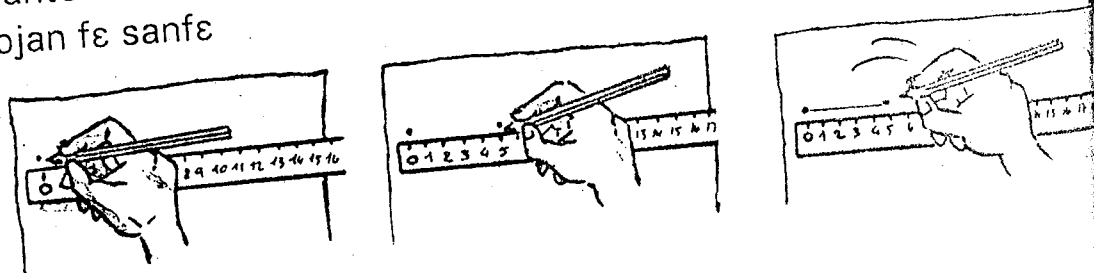
Karamogo be ci do ke walanba kan n'a bolo ye. Kalandenw be o jigon ke u ka walanninw kan.

Baara kɛta 2.

Karamogo be ci tilennen do ke n'a bolo ye walanba kan. Kalandenw b'o jigon ke u ka walanninw kan.

Baara kɛta 3.

Karamogo be tiiri tilennen do ci walanba kan ni tiiricilan ye. Kalandenw b'o jigon ke u ka walanninw kan.
 Janto : Karamogo b'a wajibiya kalandenw ka tiiri ci tiiricilan jogan fe sanfe



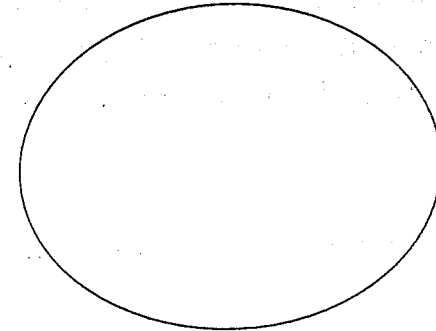
Baara kɛta 4.

Karamogo b'a jini kalandenw fe, bee ka tiiri tilennen dow ci ni tiiricilan ye u ka walanninw kan.

Degeliw :

8.6

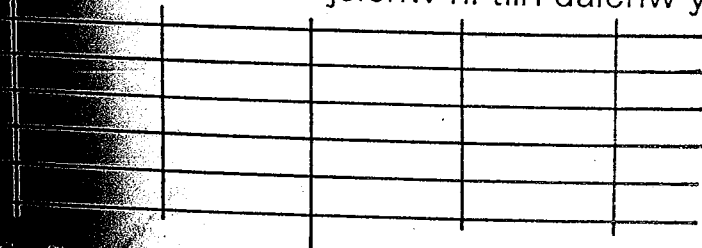
1. Tiiri jolen do ke koori in numanyanfan fe ni tiiricilan ye, i ka dalen do ke a kininyanfan fe.



2. Tiiri do ke ce in sanfe, i ka do wɛrɛ ke a senkoro.



3. Giriyasi dilan ni tiiri jolenw ni tiiri dalenw ye.



4. I'arikolon senfe, tiiri caman be ci, kalandenw b'u pan-pan u kunna k'a soro u sen ma da u kan :

Kalandenw be
jo yan :



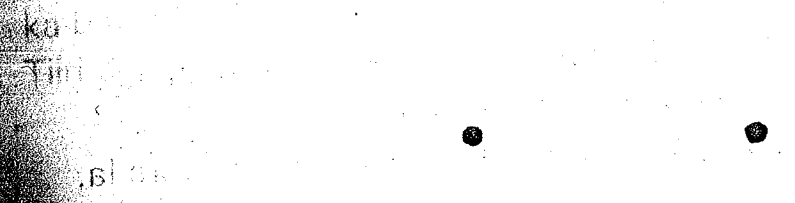
5. Farikolon senfe, karamogo be tiiri jan dow ci. Kalandenw be jo kelen-kelen tiiriw kun kelen na. A be jini u fe, u ka boli tiiri kan fo ka t'u se kun do in na k'a soro u ma jigin ka bo tiiri kan.

Kalanden kelen _____
Kalanden _____
Kalanden _____
Kalanden _____
Kalanden _____

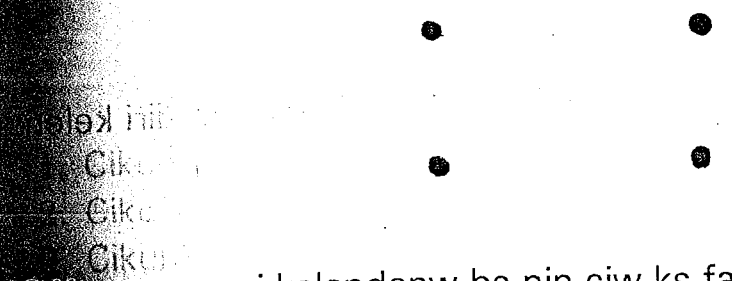
6. Ci do ke min be teme tomi in fe.

7. Ci 3 ke ka teme tomi in fe.

8. Ci ke ka teme tomi 2 ninnu fe.



9. Ciw ke minnu be teme tomi fila o tomi fila fe.



10. Karamogo ni kalandenw be nin ciw ke farikolon senfe :

a)

b)

c)

d)

Cikunkurunci

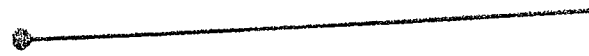
- I .Kuntilenna : kalansen laban na kalanden ka kan ka se :
- ka tiiri ci ka bo tomi do la ni tiiricilan ye.
 - ka tiiri ci ni tiiricilan ye ka bo tomi do la ka taa do wera la.

II. Baarakeminenw : walannin, farasu, tiiricilan, kiriyon

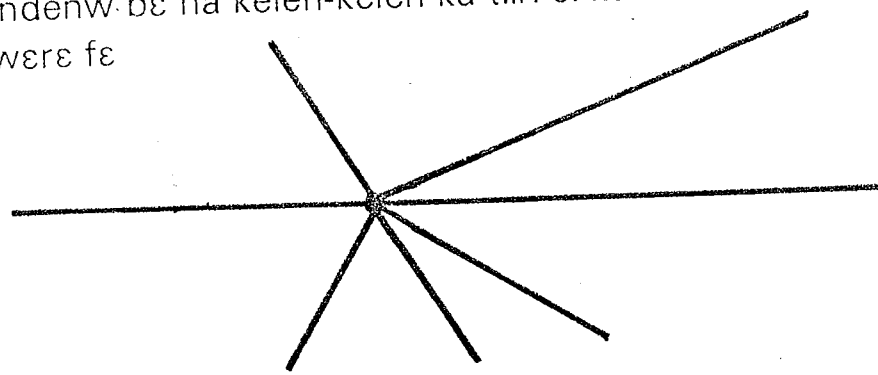
III. Taasira :

Baara keta 1.

Karamogo be tomi kelen ke walanba kan. A yere be tiiri kelen ci ka bo tomi in na ka taa fan do fe.



Kalandenw be na kelen-kelen ka tiiri ci ka bo tomi in na ka taa fan wera fe



Baara keta 2.

Kalanden kelen o kelen be tomi kelen ke walannin kan k'o jira.

Kalanden kelen o kelen be tiiri kelen ci ka bo tomi in na ka taa fan do fe.

Baara keta 3.

Karamogo be tomi fila ke walanba kan. A be tiiri ci ka bo tomi kelen na ka t'a bila to kelen na.

Kalandenw fana be tomi fila k'u ka walanninw kan, ka tiiri ci ka bo tomi kelen na ka taa to kelen na.
Tiiri cilen togo be fo kalandenw ye : cikunkurun.

Degeliw :

1. Cikunkurun dalen ci
2. Cikunkurun jolen ci
3. Cikunkurun jengennen ci ka taa kinin fe
4. Cikunkurun jengennen ci ka taa numan fe
5. Farikolon :

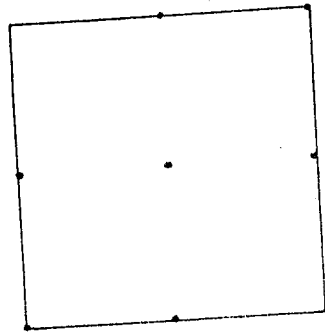
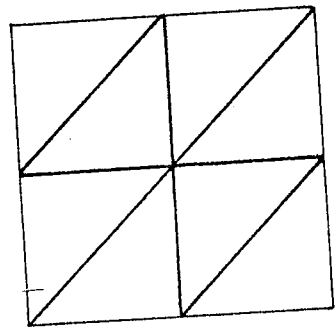
Kalandenw jolen be farikolon kene kan, k'u mabo jogon na.

Kalanden min mana sugandi o be tiiri kunkurun ci n'a sen ye, ka bo a joyoro la ka t'a bila a tojogon na :

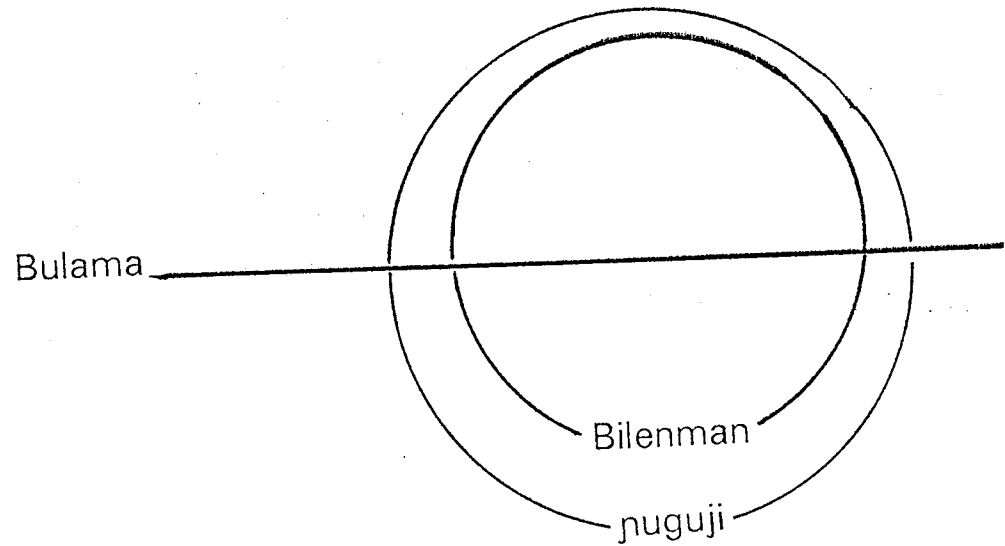
- kinin fe
- numan fe
- jefef
- kofe.

Seginkanni :

1. Nin ciw jɔɔɔn dilan :



2. Nin ja jɔɔɔn ke i ka kaye kɔnɔ ni je fɔlenw ye :

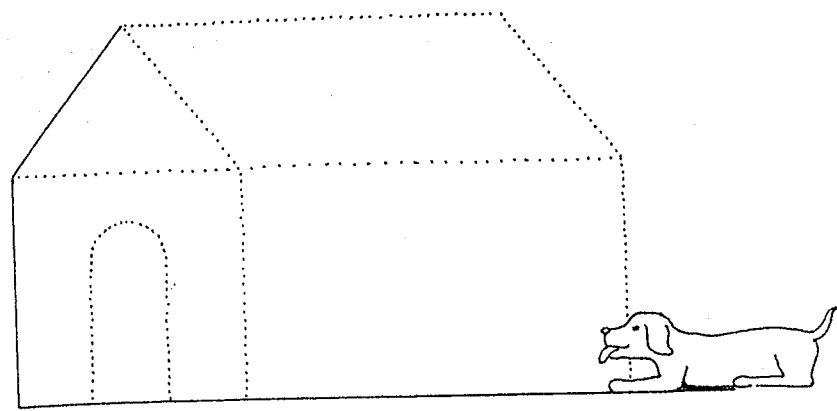


- Nin taamasiyen (□) ke cogoya la, min b'a to a be ke ci bulama kunna ani ci bilenman kɔnɔ.

- Nin taamasiyen (⊗) ke ci bulama kan a ka ke ci jugujima kɔkan.

- Nin taamasiyen (⊙) ke cogoya la min b'a to a be ke ci jugujima ni ci bilenman ce nka a ka ke bulama jukoro.

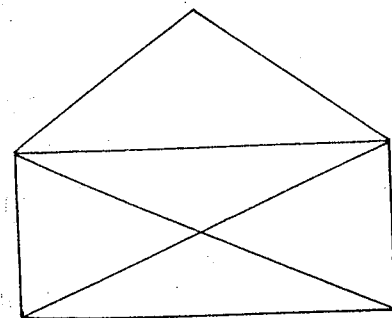
3. Nin jɔɔɔn to laban



4. Nin sawuraw ci ni cilan ye

- kɛɛsaba
- kare
- koori

5. Sonin in jɔɔɔn dilan k'a sɔrɔ i ma segin tiiri kan.



5 •

• 3

1

• 2

Jaabi numanw

2 → 5 → 3 → 1 → 4 → 5 → 1 → 3 → 2 → 1

2 → 5 → 3 → 1 → 2 → 3 → 4 → 5 → 1

1 → 3 → 5 → 2 → 3 → 4 → 5 → 1 → 2

1 → 3 → 5 → 2 → 1 → 5 → 4 → 3 → 2

Daw k'a ta 1 na ka t'a bila 9 na

I.Kuntilenna : kalansen laban na kalanden ka kan ka se :

- Ka kuluw sigi ɲogon koro minnu konɔfenw hake ye kelen ye.
- Ka kulu konɔfenw hake don.
- Ka da taamasiyen n'a hake don, k'a kalan k'a seben.
- Ka kulu sigi min konɔfen hake donnen don.

II.Baarakeminenw :

- Kulu minnu konɔfen hake b'a ta 1 na fo 9
- Kariton tigelen 9.
- Buwati 9.

III.Taasira :

Baara keta 1 : kuluw be nin manaforokow ni belekisew jini k'u bila u ka tabaliw kan.

- manaforoko 3 belekise 2 be minnu kelen kelenna konɔ
- manaforoko 5 belekise 1 be minnu kelen kelenna konɔ
- manaforoko 4 belekise 3 be minnu kelen kelenna konɔ
- manaforoko 2 belekise 4 be minnu kelen kelenna konɔ
- manaforoko 2 belekise 5 be minnu kelen kelenna konɔ
- manaforoko 3 belekise 6 be minnu kelen kelenna konɔ
- manaforoko 4 belekise 7 be minnu kelen kelenna konɔ
- manaforoko 2 belekise 8 be minnu kelen kelenna konɔ
- manaforoko 1 belekise 9 be min konɔ.

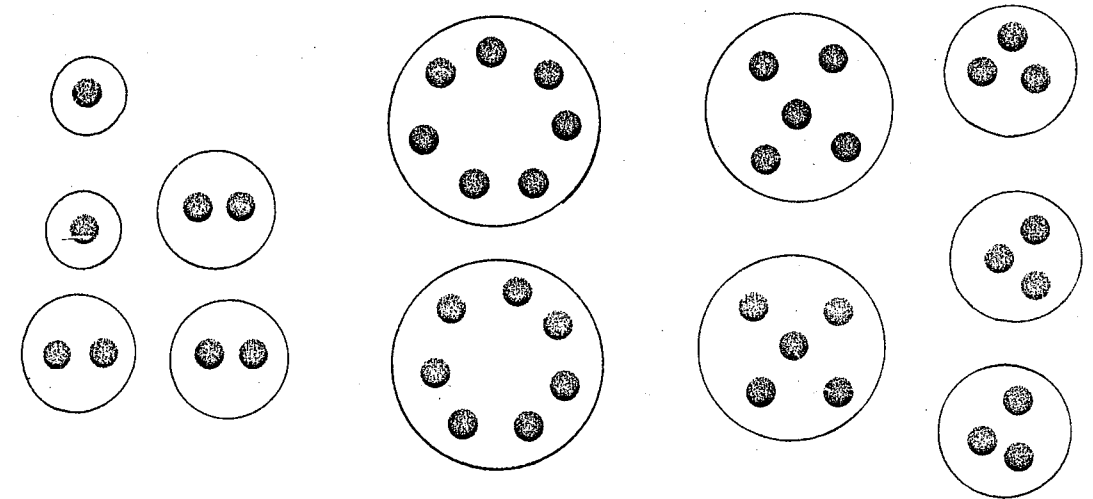
Baara keta 2 :

- Misali be ta kulu do ka tabali la manaforokow kan.
- Manaforoko minnu konɔbelekisew dama ka kan, olu be bila buwati kelen konɔ.
- Kulu tow be nin baara ɲogon ke.

Janto : baara in senfe sinsin ka kan ka ke kunkɛɲogonsigi ni saradali kan, bawo manaforoko minnu konɔbelekisew dama ka kan, olu de be ta ɲogon fe, k'u ke kulu kelen ye k'u bila buwati konɔ.

Baara keta 3 :

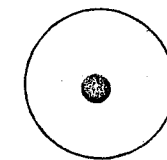
- Karamogo be belekisew tigina ke manaforoko damadow konɔ walanba kan nin cogo la :



- Kalandenw b'o ɲogon ke u ka walanninw kan ka manaforokow bolo di ɲogon ma, minnu konɔbelekisew dama ka kan.

Baara keta 4 :

- Belekise 1 be manaforoko minnu konɔ o buwati be bila a dama.
- Kelen tigina be ke walanba kan :



- Kelen be jira ka tila k'a sɛben ni jatedenw ni siginidenw ye :

1

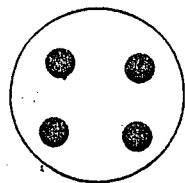
1 1 1 1

kelen kelen kelen kelen...

- Kelen be kalan walanba kan k'a sɛben walanninw kan :

Baara kɛta 5 :

- Bɛlɛkise 4 be manaforoƙo minnu kɔnɔ, o buwati be bila a dama.
- Naani tigina be ke walanba kan :



- Naani be jira ka tila k'a sɛben ni jatedenw ni siginidenw ye :

4 4 4 4 ...

naani naani naani naani

- Naani be kalan walanba kan k'a sɛben walanninw kan :

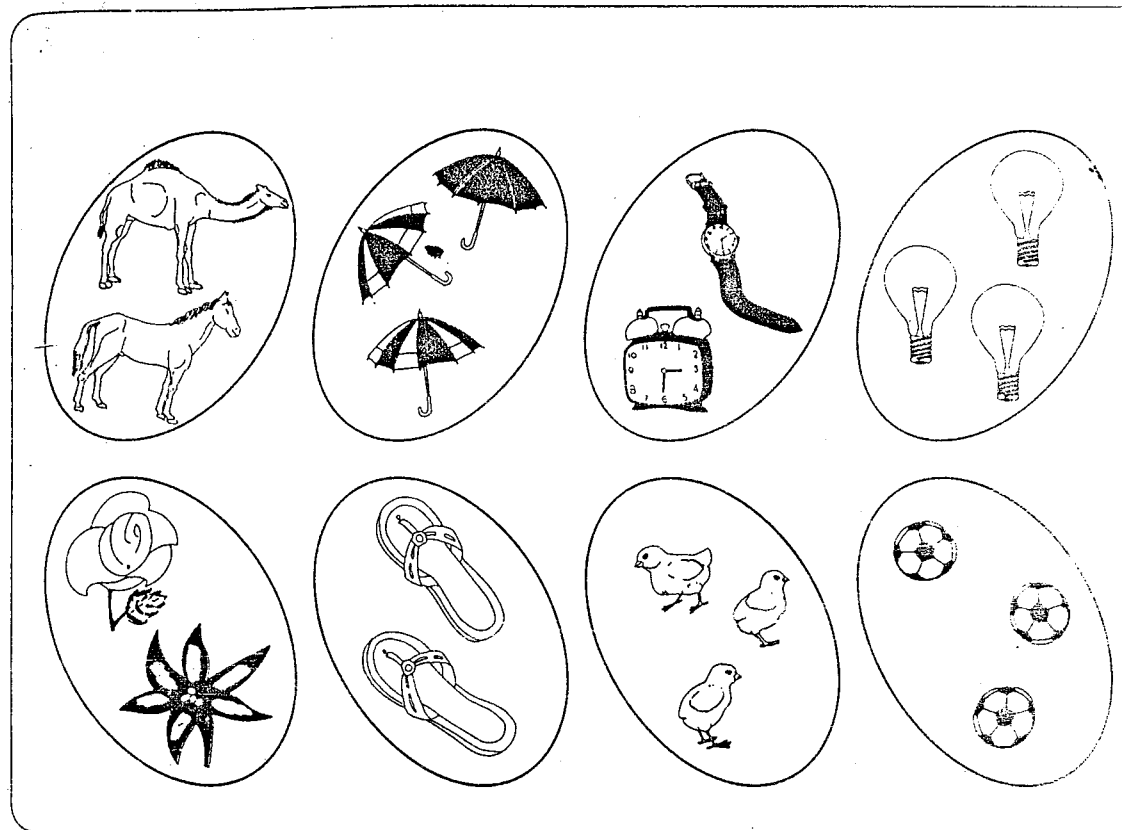
Baara kɛta 6 :

1 ni 4 sɔrɔla cogo min, da tɔw be sɔrɔ o cogo kelen na fo ka taa se 9 ma.

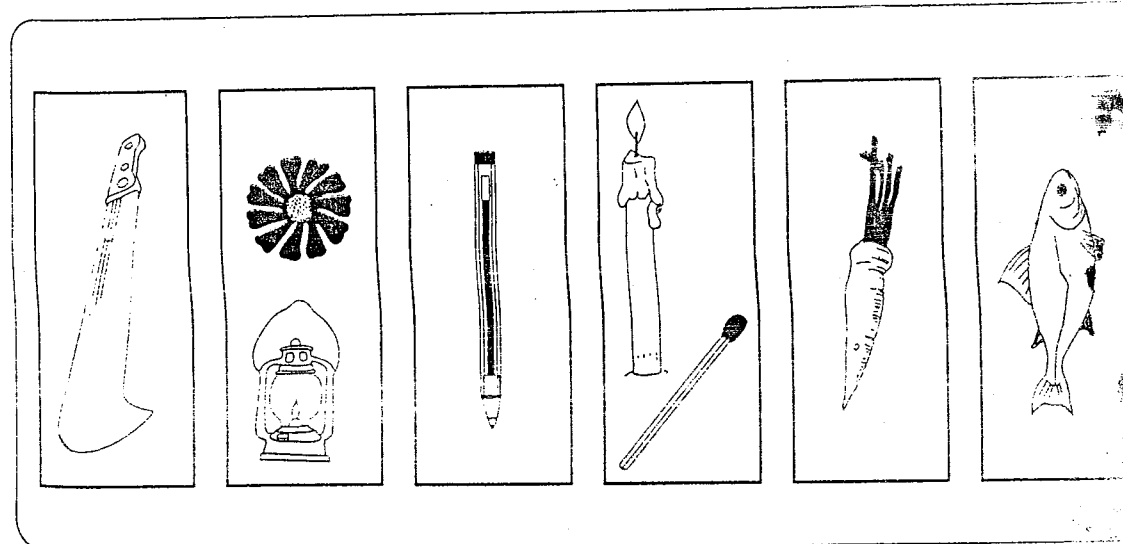
Kɔlɔsili : k'a da u sɛbenni gɛlɛya kan, a pininen be karamɔgow fɛ u ka daw kalan jɔgɔn kɔ nin cogo la : 1, 4, 2, 5, 3, 6, 7, 8, 9.

Degeliw :

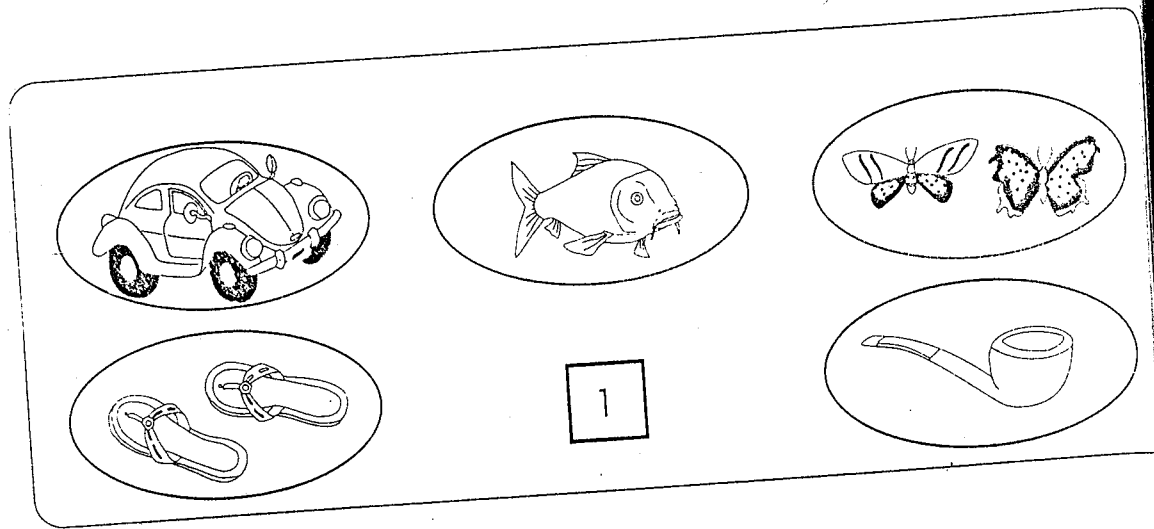
1. kulu minnu kɔnɔfenw dama ka kan, olu bolo di jɔgɔn ma.



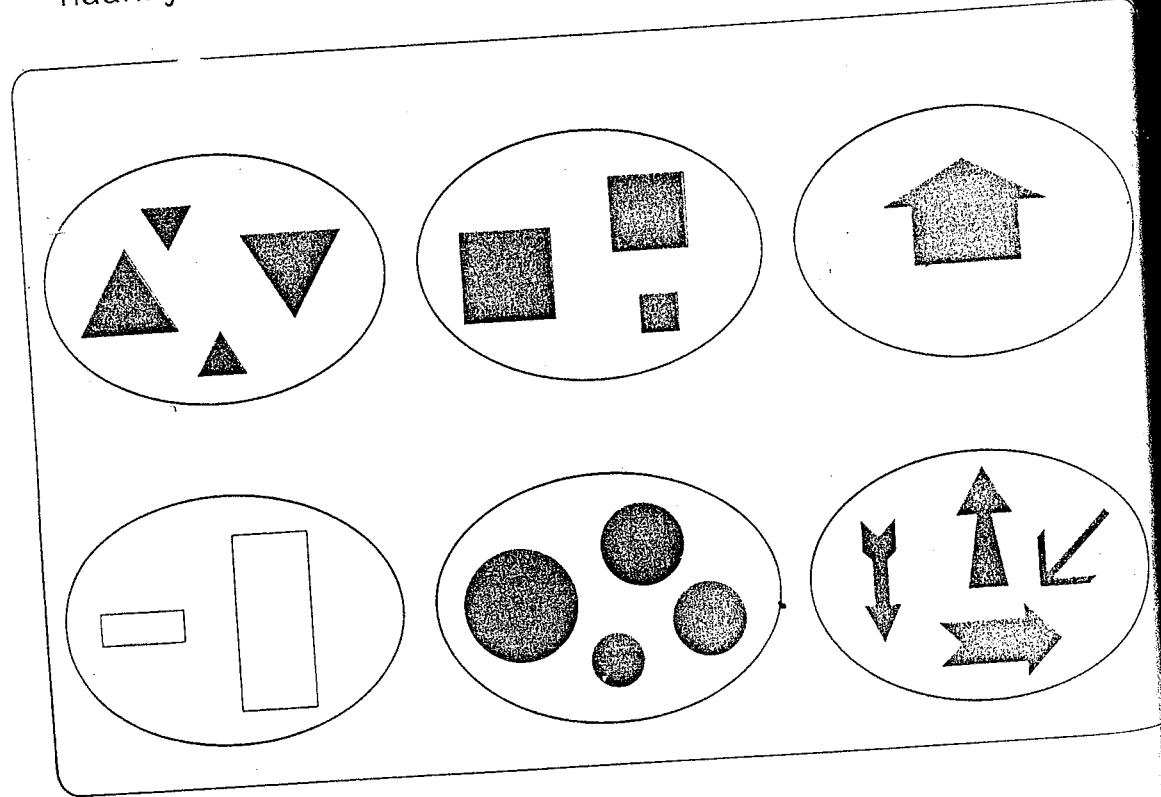
2. Nin taamasiyen (x) ke kuluw kan minnu kɔnɔfen ye kelen pe ye



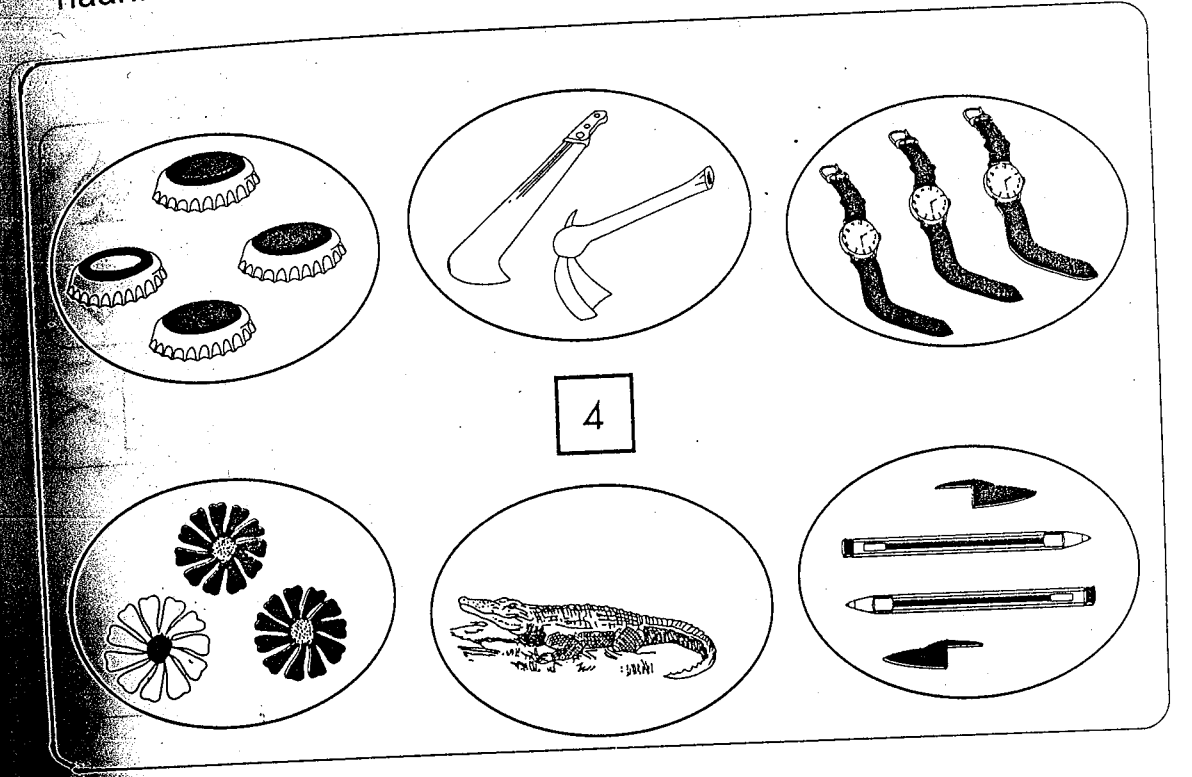
3. Kulu minnu kɔɔfɛnw ye kelen pe ye, tiiri ci ka b'olu la ka na kelen sonin na.



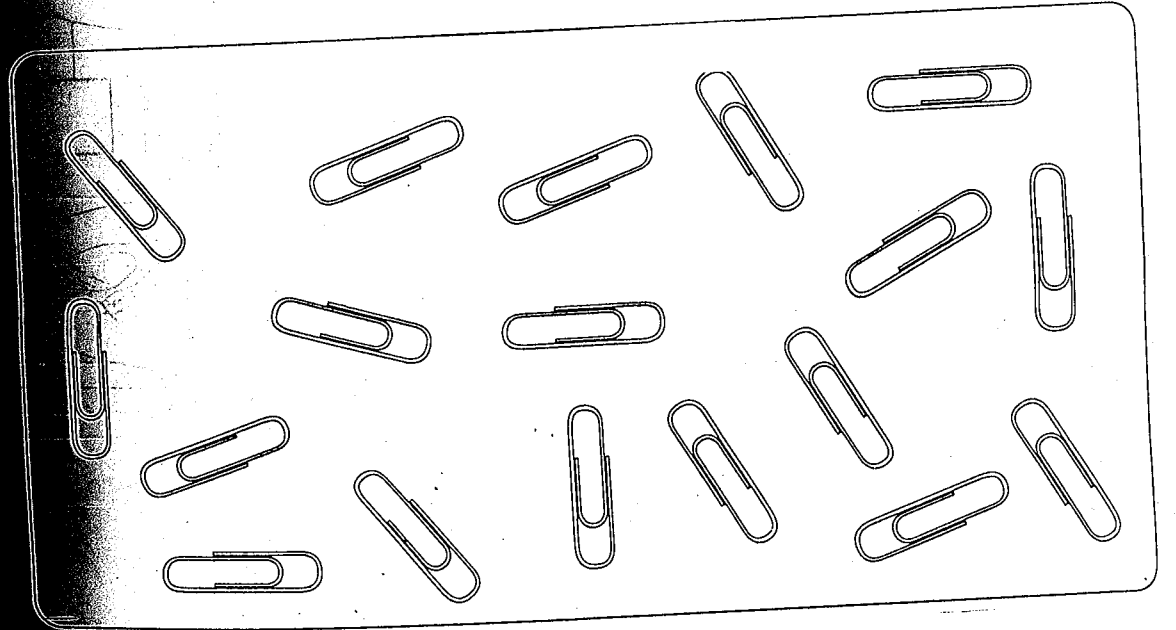
4. Nin taamasiyen (+) ke kuluw kɔɔ minnu kɔɔfɛnw ye naani ye.



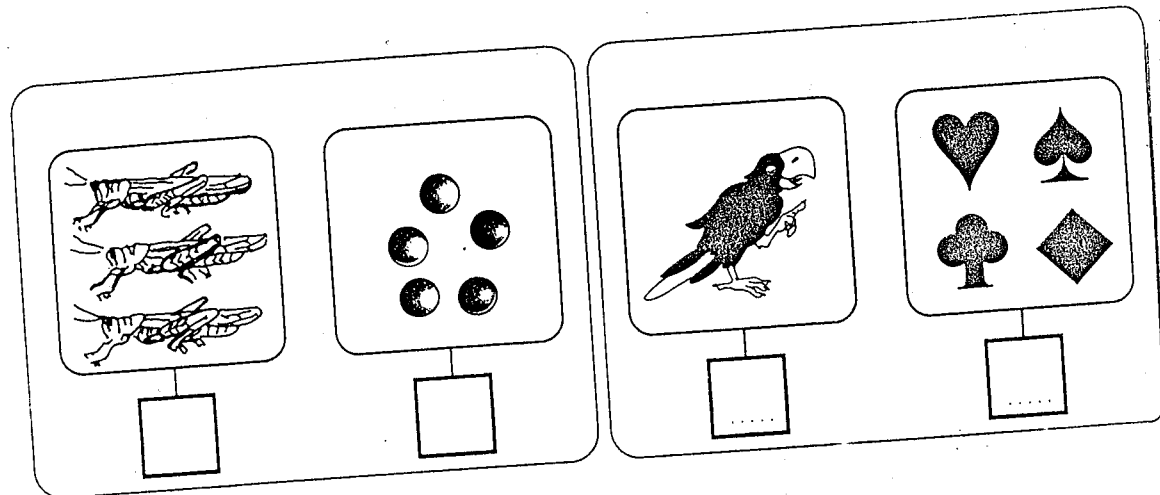
5. Kulu minnu kɔɔfɛnw ye naani ye, tiiri ci ka b'olu la ka na naani sonin na.



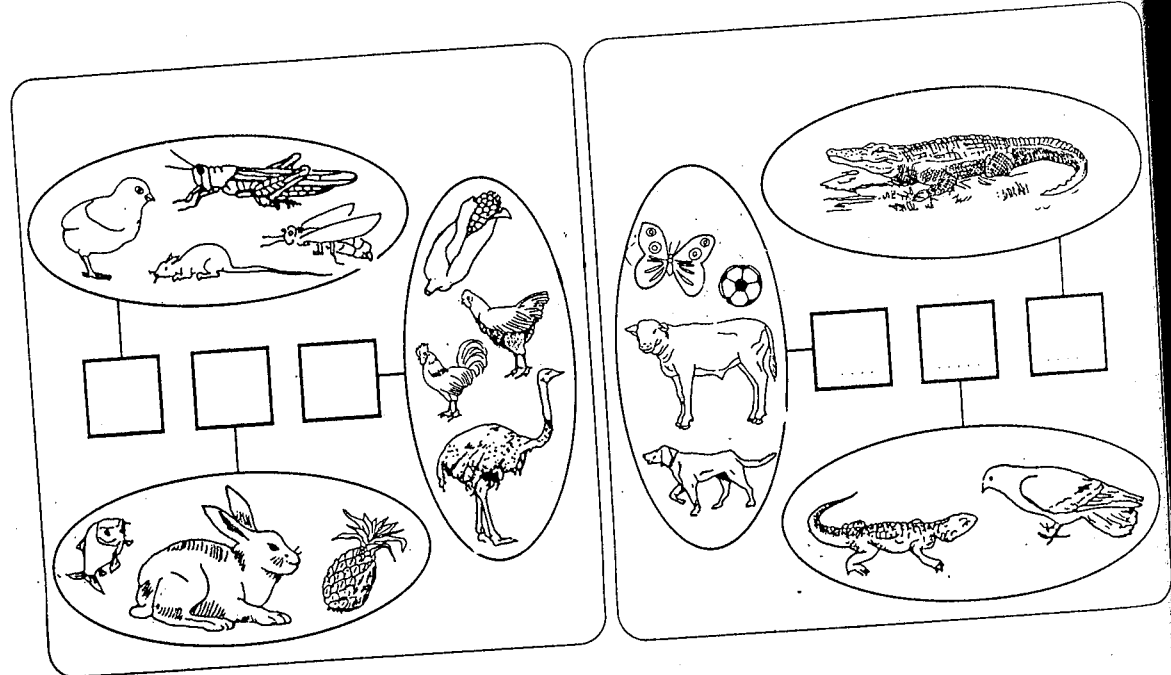
6. Nin-fɛn ninnu naani-naani ke koori kelen kɔɔ.



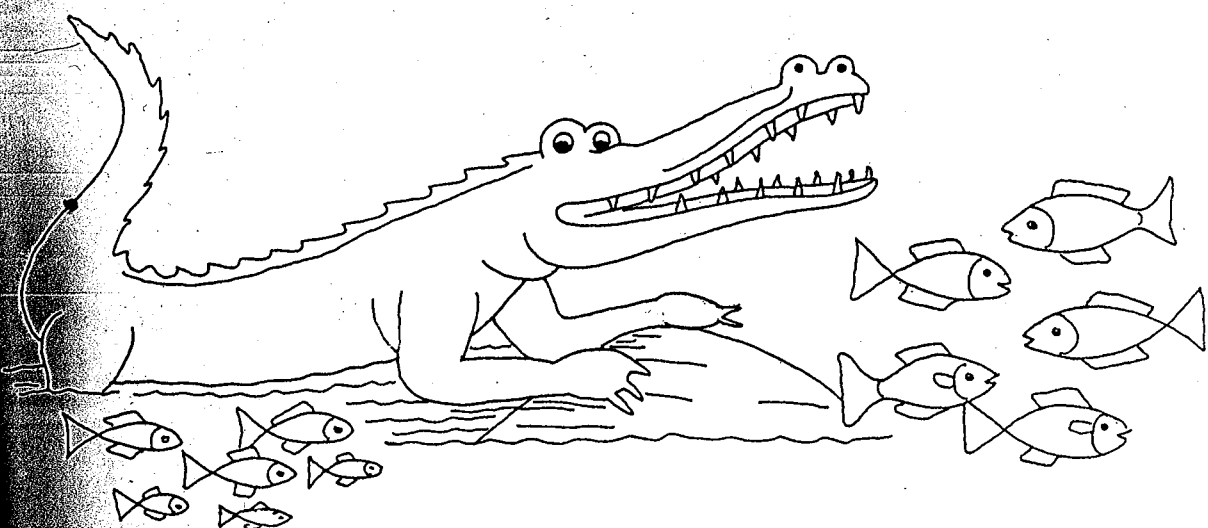
7. Fɛnw dan k'ƙu hake sɛbɛn sonin kɔnɔ duguma.



8. Fɛnw dan k'ƙu hake sɛbɛn soninw kɔnɔ cɛmance la.



Kalɛsili : nin degeliw naɓɓɔn ka kan ka ke ni da toɓ ye.



Yɔrɔ sabanan

**Daw ,kafoli
dɔbɔli, jateɓini**

1 3 9
5 7 4 +

Daw sigi – sigi ɲogɔn kɔ k'a ta 1 na ka t'a bila 9 na

I. Kuntilenna :

Kalansen in laban na, kalanden ka kan ka se :

- Ka fɛnkulu fila kɔɲɔfɛnw sanga ɲogɔn ma
- Ka dɔgɔya, caya ni kɛɲɛni taamasiyɛnw dɔn.
- Ka baara kɛ n'u ye.
- Ka daw dɔn k'u sigi-sigi ɲogɔn kɔ k'a ta 1 na ka t'a bila 9 na
- Ka daw dɔn k'u sigi-sigi ɲogɔn kɔ ka bɔ 9 na ka na 1 na .

II. Baarakɛminɛnw :

kalaninw, bɛlɛkisɛw, kalandenw.

III. Taasira

Baara kɛta 1 :

- Karamɔgɔ bɛ kalandenkuluw sigi minnu hake tɛ kelen ye
- Kalandenw bɛ kuluw sanga ɲogɔn ma fila-fila k'a dɔn min ka ca ni min ye, min ka dɔgɔ ni min ye, min ni min ka kan.

Baara kɛta 2 :

- Karamɔgɔ bɛ kuluw tigina kɛ walanba kan, kalandenw bɛ kulukɔɲɔfɛnw sanga ɲogɔn ma.

Karamoƙo be dɔgɔya « < », caya « > » ani keɓeni « = » taamasiyenw jefo, ka tila ka daw bee sanga jɔgɔn ma fila.

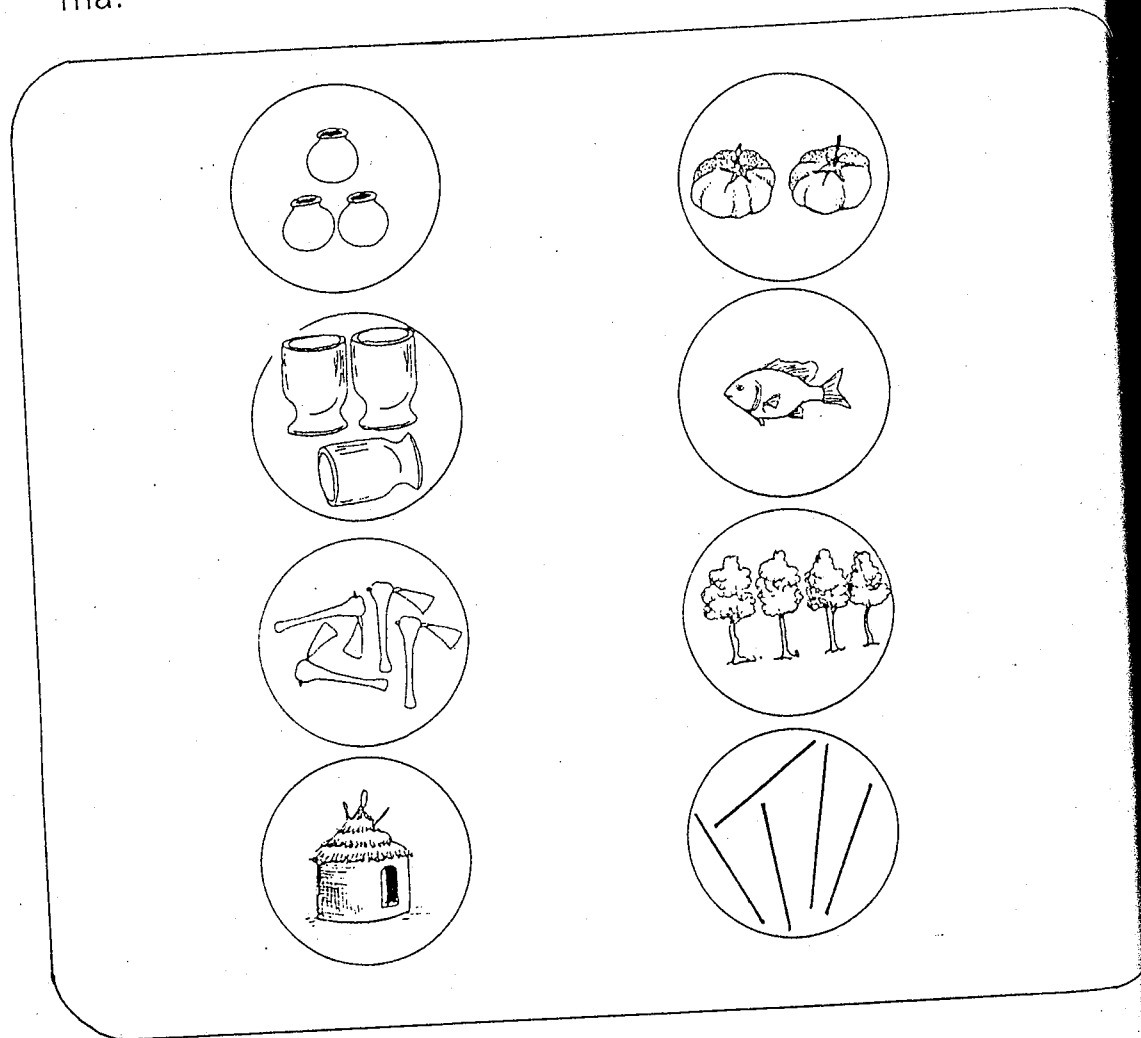
Misali : $2 < 3$; $6 > 4$; $1 = 1$

Baara keta 3 :

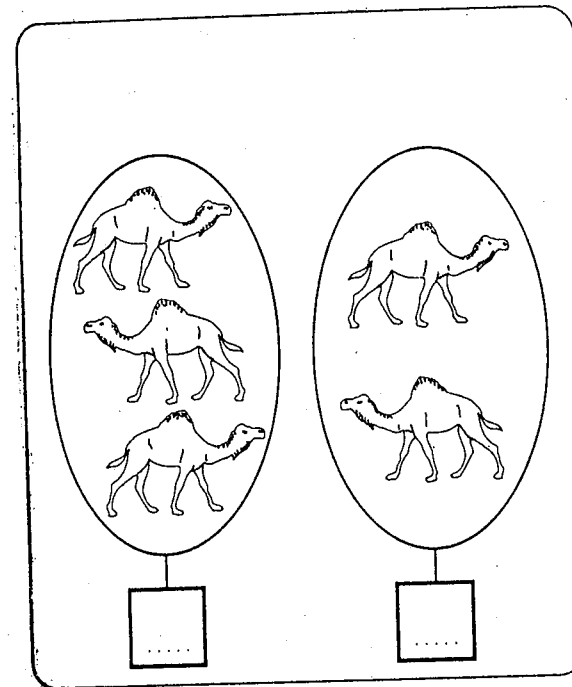
- Kalandenw be danni ke k'a ta 1 na k'a t'a bila 9 na, ka bo 9 na ka na 1 na.

Degeliw :

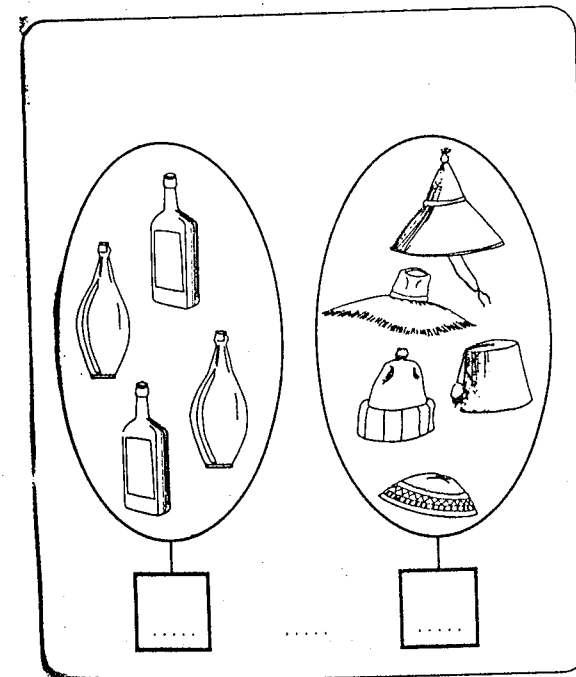
1. Koori minnu kɔnɔfenw hake ye kelen ye, olu bolo di jɔgɔn ma.



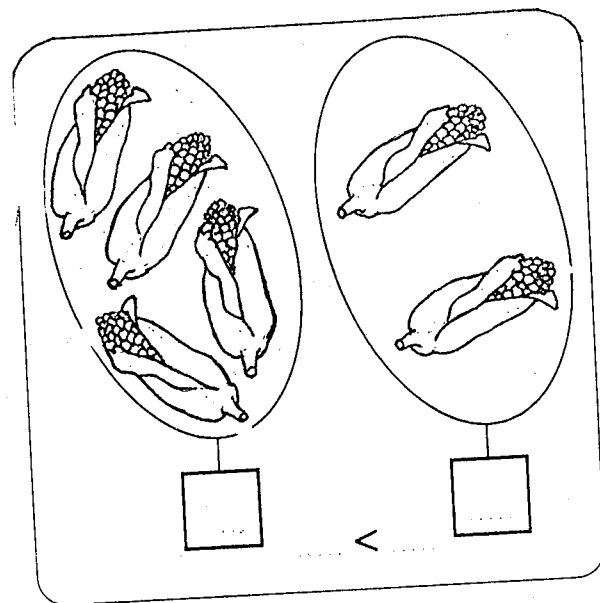
2. Kulu min kɔnɔfen ka dɔgɔ, nin taamasiyen (x) ke o jukoro sonin kɔno.



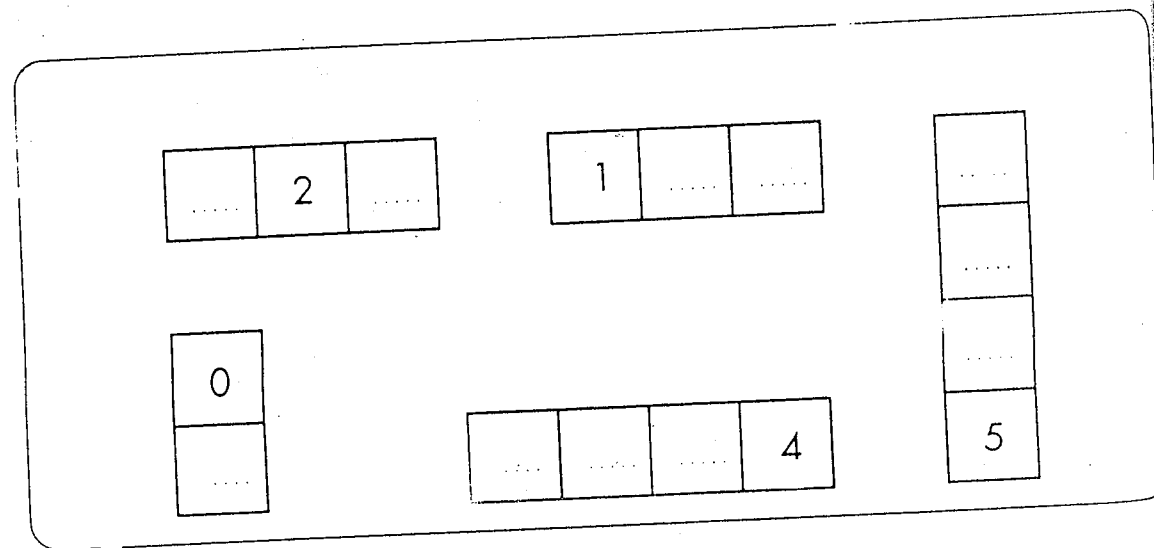
3. Kuluw kɔnɔfenw dan k'u hakew seben soninw kɔno, ka soro ka dɔgɔya taamasiyen ke u ni jɔgɔn ce



4. Kuluw konofenw dan k'u hakew sɛben soninw konɔ, ka soro ka dogoya, caya walima kepeni taamasiyen bila u ni jɔgon cɛ.



5. Daw dafa.



Daw warakali k'a ta 1 na ka t'a bila 9 na

I. **Kuntilenna** : Kalansen laban na, kalanden ka kan ka se :

- ka daw waraka
- ka fenkuluba kelen waraka kulu misenw ye
- ka nin taamasiyenw « + », « = » ke warakali senfe.

II. **Baarakeminenw** : kalaninw, belakisew, kalandenw ani fenwerew.

III. **Taasira** :

Baara keta 1 :

- Kulu kelen o kelen be kalanin 5 dan, k'a waraka a sago la.
- Kuluw kelen-kelen bee b'a ka warakali kecogow jefo.
- Kulu damado b'u ka warakali kecogo ke walanba kan.

1, 1, 1, 1, 1

1, 1, 1, 2

1, 1, 3

1, 4

1, 2, 2

- Nin taamasiyen in « + » be ke daw ni jɔgon cɛ

1+1+1+1+1

1+1+1+2

1+1+3

1+4

1+2+2

Kalɔsili : Da mana waraka cogo o cogo, n'i ye da dogomanninw fara jɔgon kan, olu be ben da kelen in ma

5 ye 2+2+1, walima 2+3, walima

2+1+1+1. O korɔ ye 5=2+2+1; 5=2+3; 5=2+1+1+1.

Baara keta 2 :

Kalanden be segin baara kelen in kan ni da werew ye

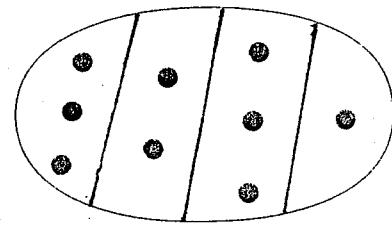
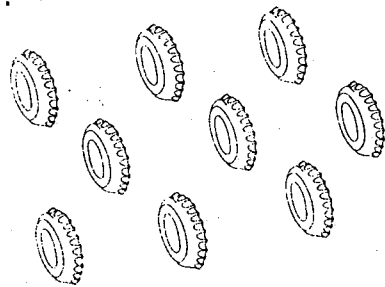
6, 7, 8, 9

Baara keta 3 :

- Karamogo be koori do ci walanba kan, ka buteli datugulan 9 ja k'a kono nin cogo la :

- Kalandenw be segin nin ja kan u ka walanninw kan.
 - Karamogo b'a jini kalandenw fe u ka buteli datugulan ninnu ke kuluw ye, u sago la.

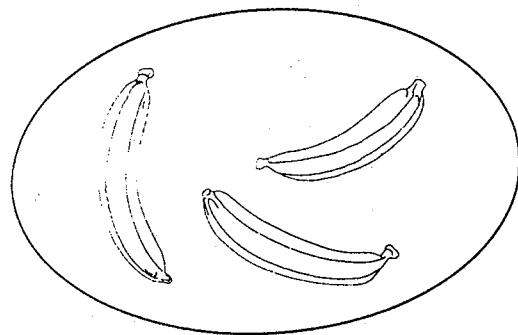
Misali :



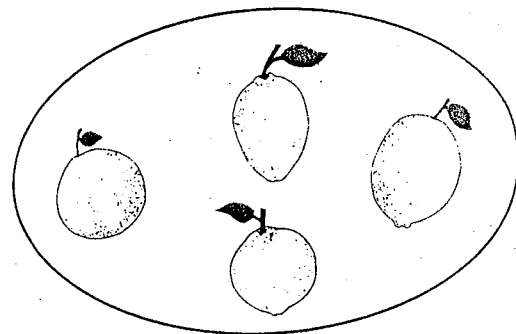
- 9 be seben ni da sarolenw ye.
 $9 = 3 + 2 + 3 + 1$

Degeliw

1. Kulu ninnu tila kulu fila ye ka da dilenw waraka :

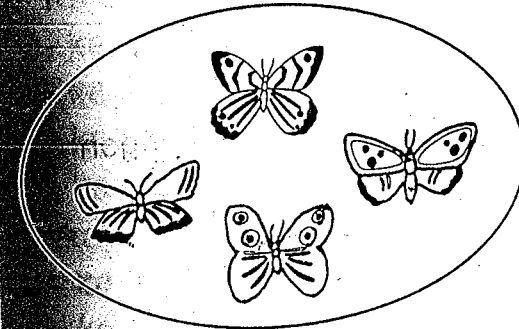


$3 = \dots + \dots$

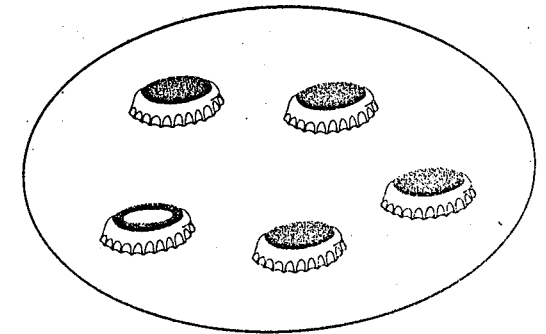


$4 = \dots + \dots$

2. Kulu ninnu tila kulu saba ye, ka da dilenw waraka :

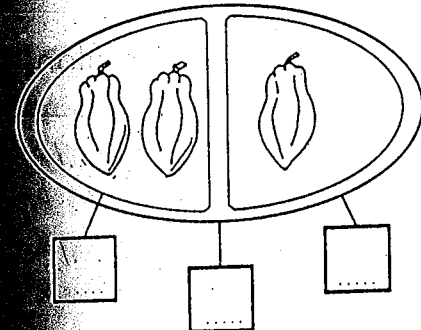


$4 = \dots + \dots + \dots$

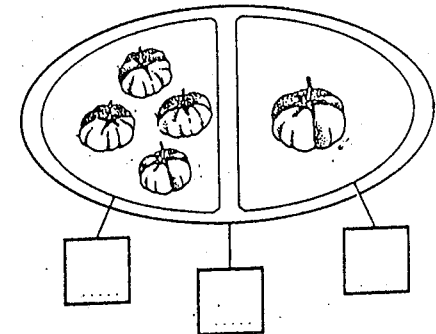


$\dots = \dots + \dots + \dots$

3. Da seben soninw kono ka soro ka sebenniw dafa duguma



$\dots = \dots + \dots$



$\dots = \dots + \dots$

4. Kare konodaw ni koori konodaw minnu ka kan, olu hoto di jogan ma.

$3 + 1$
 $2 + 2$ $2 + 3$
 4 5
 $1 + 3$ $4 + 1$
 $3 + 2$

6. Dɔgɔya taamasiyen « < » be se ka sigi da minnu ni jɔgɔn ce, a sigi yen.

2.....3 3.....5

1.....2 3.....2

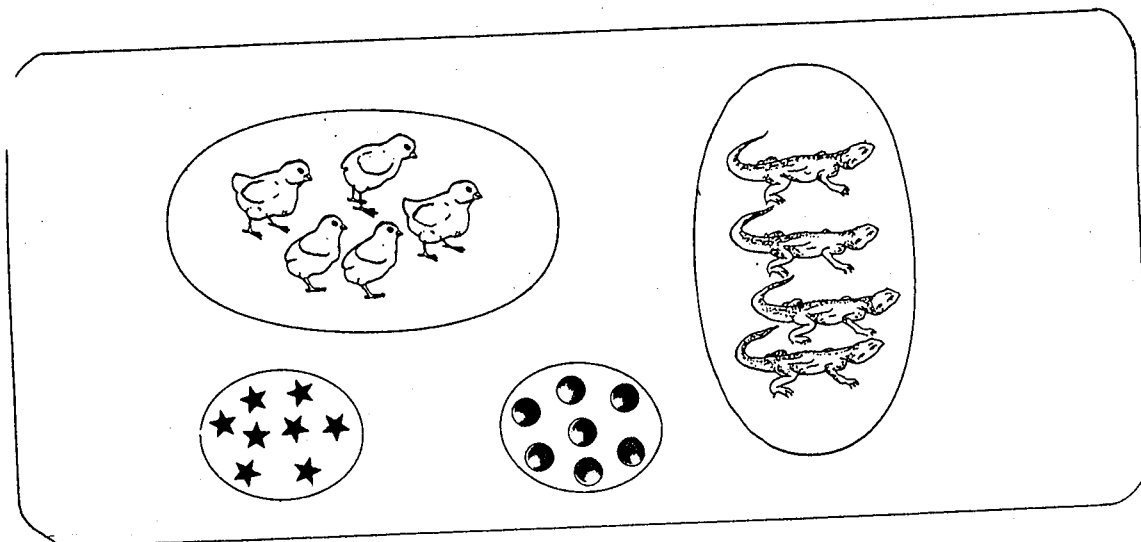
7. Caya taamasiyen « > » be se ka bila da minnu ni jɔgɔn ce a sigi yen.

5.....3 9.....6

4.....8 6.....5

3.....1 5.....5

8.	Tipe	Nkalon
Sedenw ka ca ni basaw ye	/.../	/.../
Dolow ka dɔgɔ ni bikisew ye	/.../	/.../
Basaw ni dolow hake dama ka kan	/.../	/.../
Bikisew ka ca ni sedenw ye	/.../	/.../



I. Kuntilenna :

Kalansen laban na, kalanden ka kan ka se :

- ka 0 don, k'a kalan, k'a seben
- ka 10 don, k'a kalan, k'a seben
- ka bi sɔrocogo jɛdon
- ka bi warakacogo jɛdon
- ka daw sigi-sigi jɔgɔn ko k'a ta 0 la ka se 10 ma ;
- ka daw sigi-sigi jɔgɔn ko ka bo 10 na ka na 0 la
- ka danni ke ka bo 0 la ka t'a bila 10 na.

II. Baarakeminenw :

kalandenw, belekisew, gafew, kalaninw walanninw.

III. Taasira :

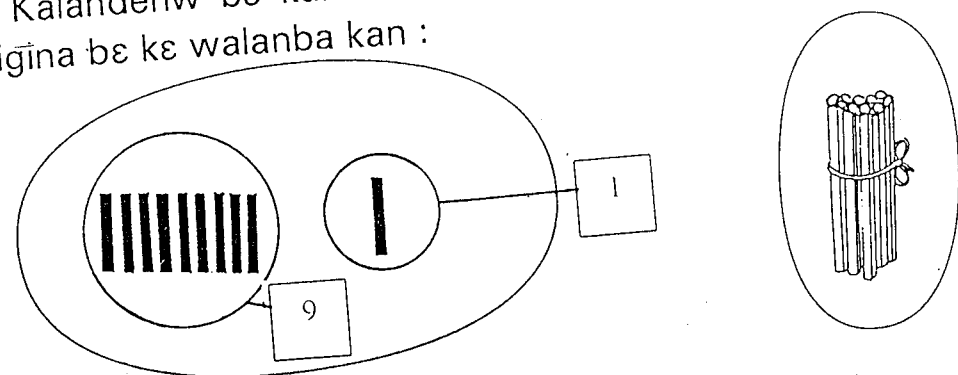
Baara keta 1 :

- Karamogo be kalanin 5 mine a bolo k'u jira kalandenw na.
- A be kalanin 5 ninnu di kalanden damado ma fo k'u ban.
- A be pininkali ke ni kala to b'a bolo.
- Karamogo ni kalandenw be nin wale in jɔgɔnnaw ke ni fen werew ye
- A be 0 seben walanba kan
- O be kalan k'a seben walanninw kan.

Baara keta 2 :

- kalandenw be kalanin 9 dan.
- karamogo b'a jini u fe u ka kalanin 1 fara kalanin 9 kan, k'o tigina ke walanba kan :

- Kalandenw be kalaninw dan k'u da fa, o ye tan ye. Tan tigina be ke walanba kan :



Tan be seben ni jatedenw ye walanba kan, k'a sebensogo fa :

1 ka 0 seben 0 kofe. - 10

- kalandenw be tan kalan k'a seben u ka walaninw kan.

10, 10, 10, 10.....

- Kalanin 10 ninu be ke siri kelen ye.

- A be jira ko siri kelen in ye bi 1 ye.

- Karamogo be katimu dilan ka 10 seben a kono

Bi	Kelen
1	0

- Karamogo b'a jini kalandenw fe u ka 10 sarocogow ke ni kalaninw walima fen werew ye.

- Karamogo b'a jini kalandenw fe u ka 10 warakacogow jefa ni kalaninw walima belkisew ye.

- Karamogo b'a jini kalandenw fe u ka danni, ke k'a damine 0 la ka taa 10 na, ka bo 10 na ka na 0 la.

Degeliw

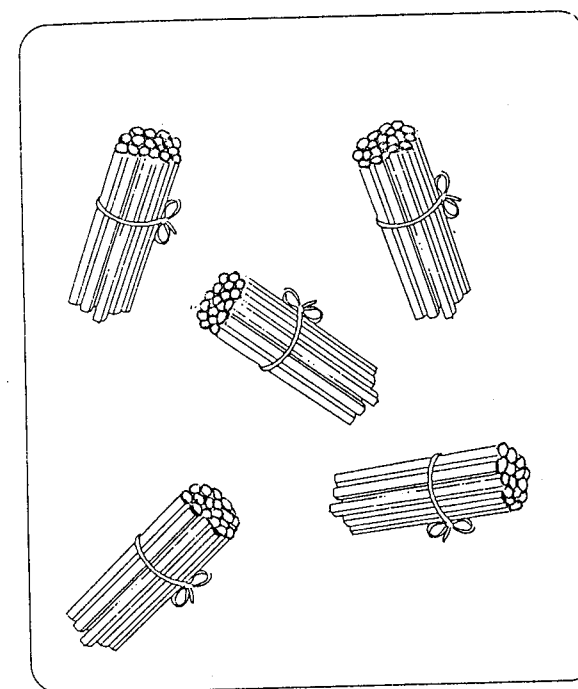
1. Katimu ninu dafa :

10						6
----	--	--	--	--	--	---

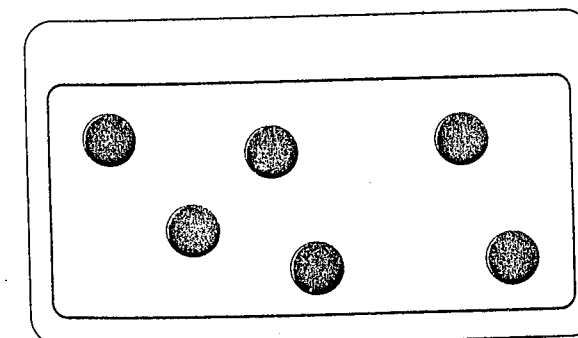
3					7			10
---	--	--	--	--	---	--	--	----

0									7
---	--	--	--	--	--	--	--	--	---

2. Bihake joli be nin koori kono ?



3. Tangili konokooriw hake dafa bi kelen na



4. Tangili kono jateden minnu faralen be jogon kan no be ben 10 ma, olu ni 10 bolo di jogon ma.

$9 + 1$
 $5 + 5$ $8 + 1$
 $3 + 7$ 10 $6 + 4$
 $3 + 2$ $8 + 2$

5. Kooriw konofenw hake seben u jukoro.

1. Oval with letters 'R', 'T', 'S', 'A' →
 2. Oval with a palm tree →
 3. Oval with two pairs of scissors →
 4. Oval with letters 'a', 'c', 'e', 'd', 'b' →
 5. Oval with three briefcases →

Daw k'a ta 0 la ka t'a bila 10 na.

I. **Kuntilenna** : Kalansen laban na, kalanden ka kan ka se :

- ka danni ke k'a ta 0 la ka t'a bila 10 na, walima ka bo 10 na ka na 0 la.
- Ka daw seben k'u sigi jogon ko k'a ta 0 la ka t'a bila 10 na, walima ka bo 10 na ka na 0 la.
- Ka daw waraka k'a ta 0 la ka t'a bila 10 na

II. **Baarakeminew** : belekisew, kalaninw, kalandenw ani fenw.

III. **Taasira** :

Baara keta 1 :

- Kalandenw be danni ke k'a ta 0 la ka t'a bila 10 na
- Kalandenw be danni ke ka bo 10 na ka na 0 la.

Baara keta 2 :

- Kalandenw be daw seben k'a ta 0 la ka t'a bila 10 na
- Kalandenw be daw seben ka bo 10 na ka na 0 la

Baara keta 3 :

- Karamogo be da dow fo kalandenw bu seben k'u kalan k'a ta 0 la-ka-t'a bila 10 na.
- Karamogo be da dow seben, kalandenw bu alan, ka bo 10 na ka na 0 la.
- Kalandenw be da fila sanga jogon ma :

Missali : $2 < 3$; $0 < 1$; $10 < 7$

$5 = 2 + 3$; $10 = 9 + 1$

Baara keta 4 :

- Kalandenw be fen hake damado sarada i n'a fo belekisew ni kalaninw.

$$7 \begin{array}{|c|} \hline \bullet \bullet \\ \hline \bullet \bullet \bullet \\ \hline \end{array} = 2 + 5$$

$$7 \begin{array}{|c|} \hline \bullet \bullet \\ \hline \bullet \bullet \bullet \\ \hline \bullet \bullet \\ \hline \end{array} = 1 + 3 + 3$$

$$7 \begin{array}{|c|} \hline \bullet \bullet \\ \hline \bullet \bullet \bullet \\ \hline \bullet \bullet \bullet \\ \hline \bullet \\ \hline \end{array} = 1 + 2 + 3 + 1$$

Degeliw

1. Daw sigi nɔɔɔn kɔ k'a ta 0 la ka t'a bila 10 na
5 ; 1 ; 10 ; 3 ; 8 ; 0 ; 6 ; 4 ; 7 ; 9 ; 2

2. Daw sigi nɔɔɔn kɔ k'a ta 10 na ka na 0 la
3 ; 5 ; 8 ; 7 ; 9 ; 1 ; 4 ; 6 ; 0 ; 2 ; 10

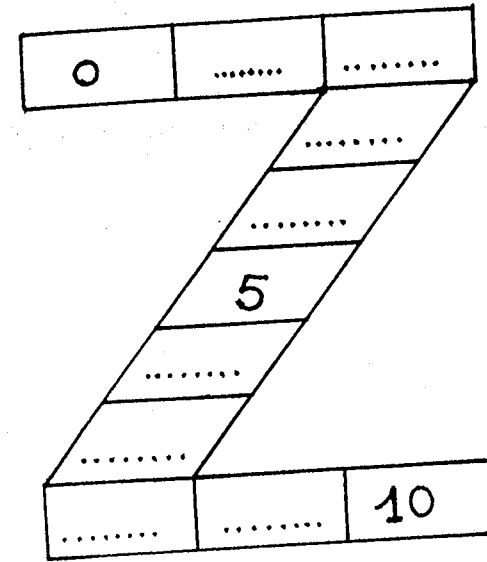
3. Nin saradaliw dafa :

$$9 = 2 + \dots + 6$$

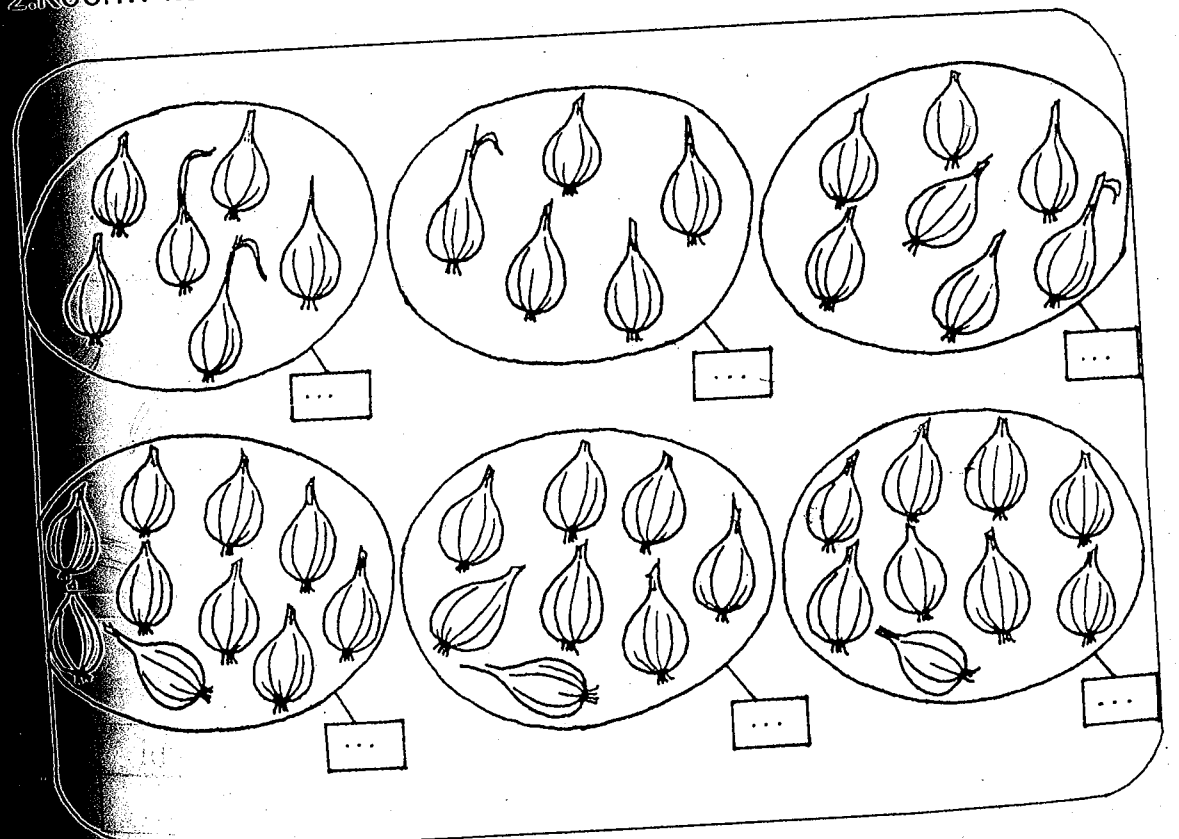
$$10 = 1 + 3 + \dots + 2$$

Seginkanni :

1. Nin katimu dafa.



2. Kooriw kɔnɔfenw dan k'u hake sɛben.



3. Daw sɛbɛn ka bɔ 10 na ka na 0 la

4. Nin daw sɛbɛn ni siginidenw ye

5 , 7 , 3 , 8 , 10

5. Da ninu sanga nɔgɔn ma i ka taamasiyen numan bila u ni nɔgɔn cɛ.

(> , < , =)

3 ... 5

9 ... 9

8 ... 6

10 ... 9

4 + 2 ... 7

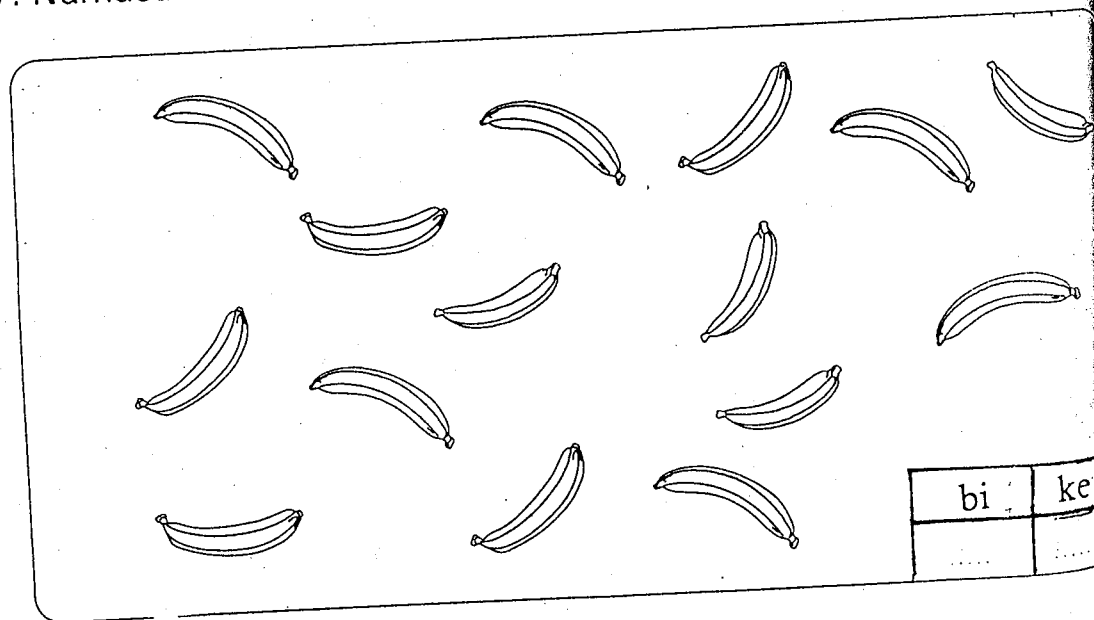
10 + 0 ... 10

4 + 5 ... 8

6. Nin daw waraka.

10 , 8 , 5 , 9 , 7

7. Namasaw tan - tankulusigi ka sɔrɔ ka katimu lafa jukɔrɔ.



Kafoli kun

I. **Kuntilenna** : kalansen laban na, kalanden ka kan ka se :
ka kafoli kekun don :

II. **Baarakeminɛnw** :

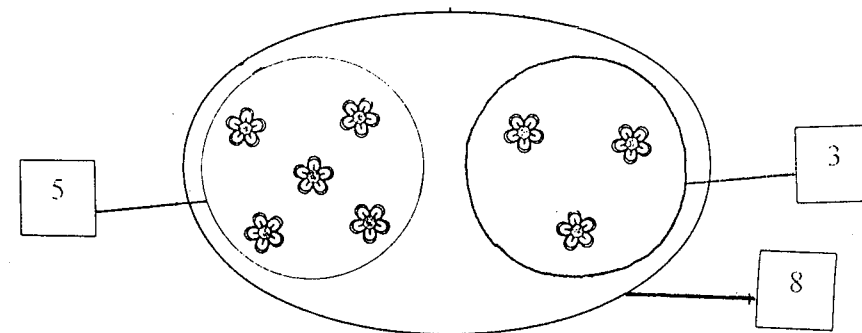
- Kalandenw, kalaninw, bɛɛkisew, jiridenw an'u nɔgɔnnaw.

III. **Taasira** :

Baara kɛta : karamɔgɔ bɛ kalanden 5 sugandi kulu dɔ kɔnɔ, ka 3 sugandi kulu wɛrɛ kɔnɔ. Olu bɛ na u jɔ kalandenw nɛfɛ. Karamɔgɔ b'i jɔ kalandenkulu fila ninu ni nɔgɔn cɛ.

- Kalanden tɔw bɛ pininka kalanden sugandilenw hake la, ka sɔrɔ k'u pininka hake in sɔrɔcogo la (5 kafa 3 la, o ye 8 ye).

- kalanden 5 ni kalanden 3 tigena bɛ kɛ nin cogo la walanba kan.



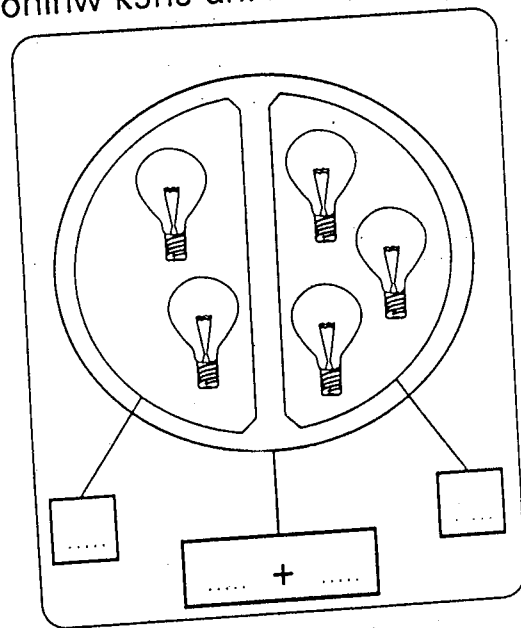
○ kɔ, kafoli taamasiyen bɛ jira kalandenw na u b'a kɛ u ka walanninw kan:

Kafoli jatesigi bɛ sɛbɛn nin cogo la.

$$5 + 3 = 8$$

Degeliw

1. Daw sebɛn soninw koɔo ani kafoli soba koɔo.



2. Nin jateɛini be jaabi walanninw kan. Namasa 5 be Aya ka segi koɔo, a ba ye lenburuba 7 d'a ma. Jiriden joli be Aya ka segi koɔo ?

3. Laji ye mangoro 6 kari, Sidi ye 3 kari. U y'a beɛ ke segi kelen koɔo. Mangoro joli b'u ka segi koɔo ?

4. Asa ye goɔmi 5 san, a dogonin ye 3 san, goɔmifeerela ye goɔmi joli feere u ma ?

5. Kafoli ninnu jaabi sebɛn

$3 + 4 =$; $6 + 3 =$; $5 + 2 =$

$7 + 2 =$; $8 + 1 =$; $5 + 3 =$

6. Kafoli ninnu jaabi sebɛn

$2 + 4 + 3 =$; $1 + 5 + 2 =$

$3 + 1 + 4 =$; $6 + 1 + 2 =$

Daw k'a ta 10 na ka t'a bila 19 na

I. Kuntileɛna : Kalansen laban na kalanden ka kan ka se :

- ka kulu do koɔofɛnw da don
- ka daw soro, k'u kalan, k'u sebɛn k'a ta 10 na ka t'a bila 19 na
- ka kulu tigina dilan min koɔofɛn hake dadonnen don
- ka daw soro walima k'u waraka, k'a ta 11 na ka t'a bila 19 na
- ka daw kalan k'u sebɛn k'a ta 0 la ka t'a bila 19 na, ka bo 19 na ka na 0 la.

II. Baarakeminɛnw : belekisew, kalaninw, kalandenw, farasuɛw

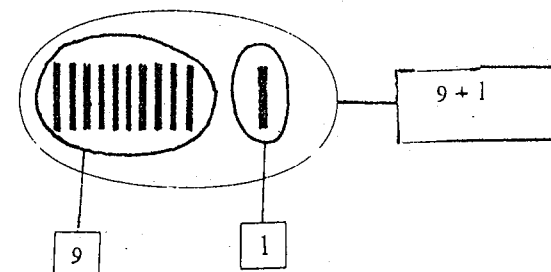
III. Taasira :

Baara keta 1 : Kalanden kelen. - kelen be kalanin tan dan, k'a bila tabali kan u jekoro.

- Karamogo b'a jini u fe u beɛ ka kalanin 1 da kalanin 10 in kerɛfe.

Baara keta 2 :

- Karamogo b'o tigina ke walanba kan :



Baara keta 3 :

Karamogo be soro ka kalaninw bikalasiri, k'o tigina ke walanba kan :



-Bikalasiri 1 ni 1 be seben katimu kono.
 -Karamogo be 11 seben walanba kan k'a kalan, kalandenw b'a fo karamogo nofe, ka tila k'a seben walanninw kan :

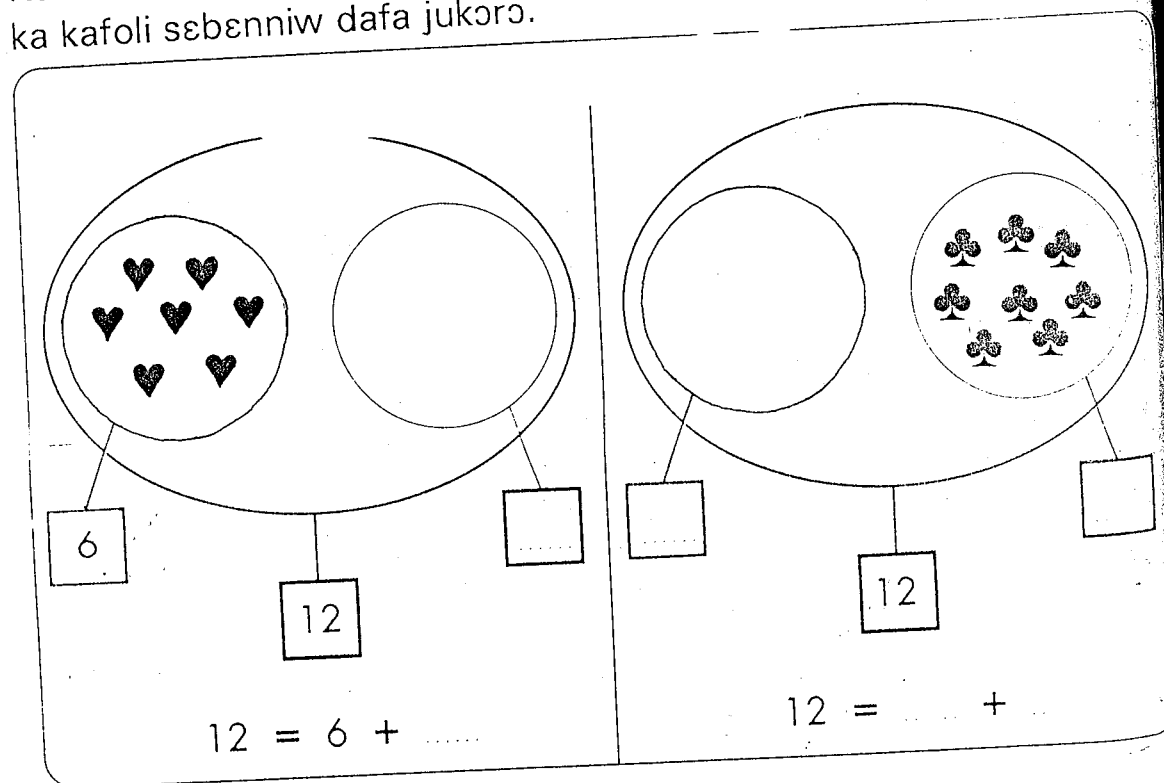
11 11 11.....

Baara keta 4 :
 Kalandenw ni karamogo be 11 sorocogo n'a warakacogo caman ke.

Baara keta 5:
 - Da kalannenw ni 11 be sanga jogon ma ka 11 sigi a jayoro la.
 - Kalandenw be danni ke k'a ta 0 la ka t'a bila 11 na, ka bo 11 na ka na 0 la.

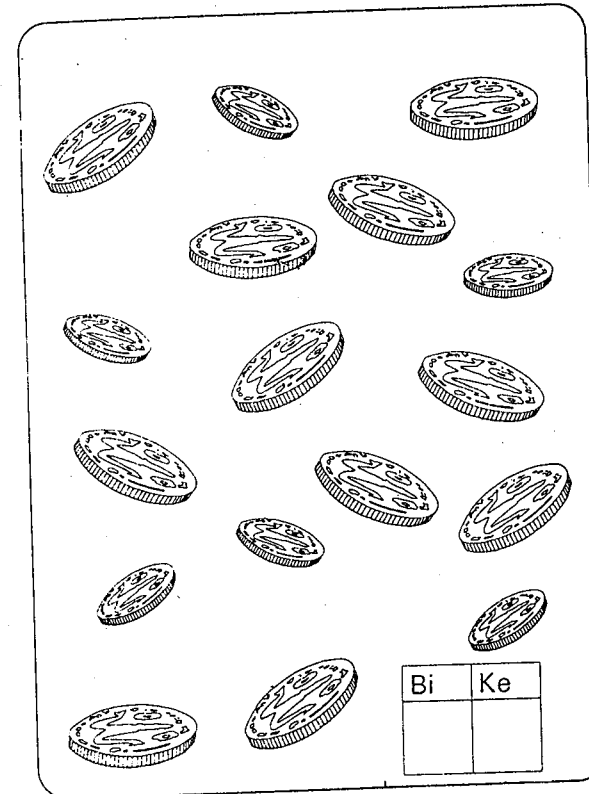
Baara keta 6 : daw 12 - 13 - 14 - 15 - 16 - 17 - 18 - 19 -, olu bee kalancogo be ke 11 ta cogo la.

Baara keta 7 :
 Kuluw konofenw dilan, k'u hakew seben soninw kono ; ka soro ka kafoli sebenniwa dafa jukoro.



Degeliw :

1. Ninnu bikulu sigi ka da sorolen seben jukoro.



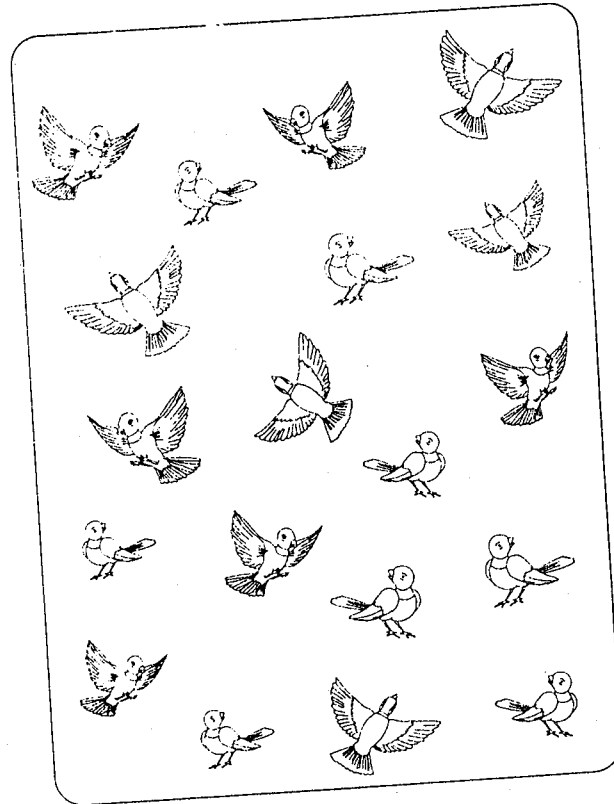
2. Nin jatesigiw dafa

- 10 + ... = 11
- 7 + ... = 11
- 10 + ... = 12
- ... + 9 = 12
- 3 + ... = 13
- 7 + ... = 11
- 6 + ... = 14
- 13 + ... = 17
- 8 + ... = 15

3. Nin daw sigi naƙoƙo ko ka ba caman na ka na dogomannin na :

8, 3, 13, 7, 19, 11, 12, 9, 0

4. Kono 15 ke kooƙi kelen kono



5. Nin jatesigi ninnu dafa

10	+	6	=	13	+	6	=
8	+	4	=	4	+	6	=
7	+	7	=	6	+	9	=
9	+	8	=	1	+	3	=
12	+	5	=	9	+	9	=

Kafoli : Kεcogo

I. **Kuntilenna** : Kalansen laban na, kalanden ka kan ka se :
 - ka kafoli kecogo waleya
 - ka da fila kafo k'u mumε soro.

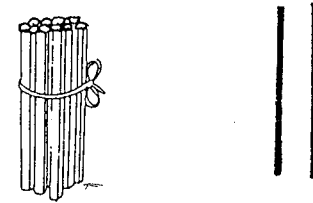
II. **Baarakeminεnw** : Kalaninw, daw katimu

III. **Taasira**:

Baara keta 1 : Nin kafoli in misali be seben walanba kan.

$$12 + 15 =$$

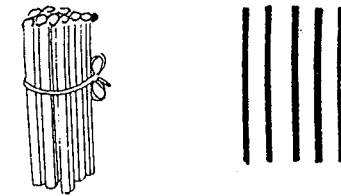
12 tigina be ke walanba kan ni kalanin 10 siri kelen (bi 1) ani kalanin 2 ye ; ka 12 seben a jukoro.



Bi 1

2

- 15 fana tigina be ke walanba kan ni kalanin 10 siri kelen (bi 1) ye ani kalanin 5 ye, ka 15 seben a jukoro.



Bi 1

5

Baara keta 2 :

- 12 ni 15 be sɛben katimu kɔnɔ ka kafoli ni kɛɛni taamasiyɛn ke nin cogo la.

Bi	Kelen
1	2
+ 1	5
= 2	7

- kafoli be ke so ni so :

- **kelenw ka so** : 2 + 5 o ye ; 7 ye 7 be sɛben kelenw ka so 5 jukɔɔ.
- **Biw ka so** : 1 + 1 o ye 2 ye ; 2 be sɛben biw ka so kelen jukɔɔ.

- O'ko, jatesigi be kalan .

- Kalanden damado be taa walanba la, ka kafoli misali werew waleya.

Marata : kafoli jatesigi waleyali sanfe, kelenw be kafo nɔɔn na folo, ka sɔɔ ka biw kafo nɔɔn na ka bo sanfe ka jigin.

Degeliw

1. Katimu kɔnɔda ninnu waleya walannin kan.

Bi	kelen
1	3
+ 1	5
=	

Bi	kelen
1	5
+ 1	4
=	

Bi	kelen
1	2
+ 1	1
+ 1	2
=	

2. Jatesigiw jaabiw jini

Misali : $17 + 2 = 19$ $15 + 3 = 18$ $15 + 13 = 28$ $12 + 12 = 24$

$11 + 5 = 16$ $17 + 11 = 28$ $14 + 5 = 19$ $16 + 12 = 28$ $18 + 11 = 29$ $10 + 10 = 20$

$10 + 9 = 19$ $12 + 15 = 27$

3. Katimu in dafa :

+	4	5	7	8
4	8			
5				13
7				
8				

Da 20

I. Kuntilena : kalansen laban na, kalanden ka kan ka se :

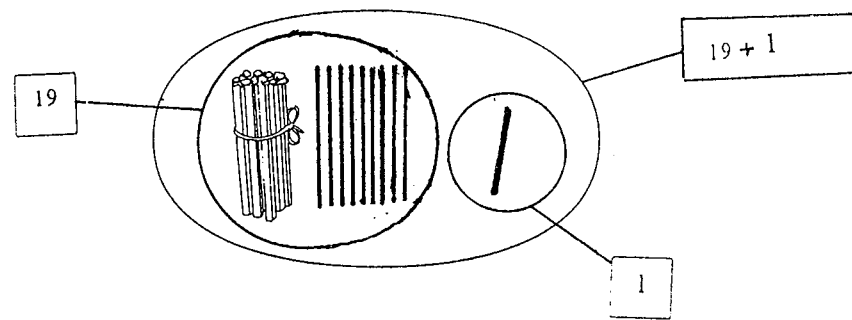
- ka 20 kalan k'a se ben ni jatedenw ni siginidenw ye
- ka fenw tan-tansigi
- ka jatedenw sigiyorow don.
- ka 20 soro, k'a waraka

II. Baarakeminenw : kalaninw, belekisew, farasuw, ...

III. Taasira :

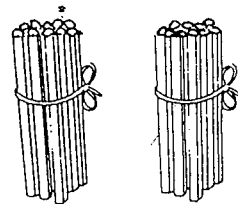
Baara keta 1.

- Kalandenw kelen-kelenna be kalanin tan ni kononton dan k'o bila tabali kan u jekoro.
- Karamogo b'a jin'u fe u be ka kalanin kelen da kalanin tan ni kononton kerefe.
- Karamogo b'o tigina ke walanba kan ni sorocogo taamasiyen ye nin cogo la :



Baara keta 2 :

- Karamogo be kalaninw bikalasiri walima tan-tankulusigi, k'o tigina ke walanba kan.
- Bi 2 ni 0 be se ben katimu konso.



Bi	Kelen
2	0

Baara keta 3:

- Karamogo be 20 se ben walanba kan, k'a kalan, kalandenw b'a fo a nefe ka soro k'a se ben walanninw kan.

20

20

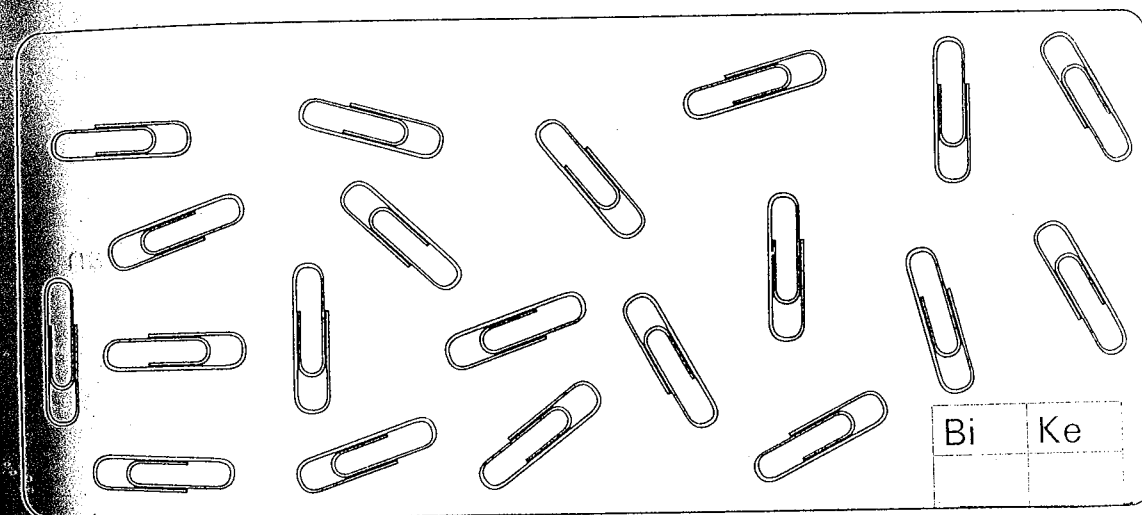
20

20 be tila ka se ben ni siginidenw ye : mu gan

Baara keta 4: 20 sorocogo n'a warakali be waleya karamogo ni kalandenw fe.

Degeliw

1. Fenw tan-tankulusigi, i ka se ben niw dafa duguma.



2. Nin jatesigiw dafa

$$12 + \dots = 20, \quad 6 + \dots = 20, \quad 14 + \dots = 20$$

$$\dots + 0 = 20, \quad \dots + 0 = 10, \quad \dots + \dots = 20$$

3. * Ker esaba hake jininenw ke koori konso, ka se ben niw dafa duguma.

* Tomi hake jininenw ke koori konso ka da jininenw se ben soninw konso.

4. Nin daw sigi jagon ko ka bo caman na ka na dogomannin na.

9, 12, 7, 4, 8, 1, 5, 14, 20

5. Jaabiw di
 $9 + 11 = \dots$ $12 + 8 = \dots$; $10 + 10 = \dots$
 $7 + 13 = \dots$; $15 + 5 = \dots$; $11 + 9 = \dots$
6. Katimu in dafa.

+	3	5	7	10
10	.....	15	.....	.....
15	.....	.....	.....	.....

7. Sanfetilayoro jateden laban ye 3 ye.

- Sanfetilayoro soden laban ani dugumatilayoro soden laban mumɛ ye 10 ye,
- Dugumatilayoro jatedenw mumɛ ye 18 ye
- Daw sɛben sodenw kɔnɔ.

5	3

8. Ne ye jatedenfila da ye min ka ca ni jatedenfila daw bɛɛ ye. N ye da jumen ye ?

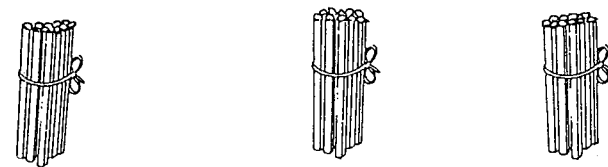
Ne ye jatedenkelen da ye min ka dogo ni jatedenkelen daw bɛɛ ye. N ye da jumen ye ?

Tan – tankulusigi sariyaw.

I. Kuntilenna : Kalansen laban na, kalanden ka kan'ka se :
 - ka fenw tan- tankulusigi k'u hake don
 - ka jateden joyoro don da sɛbenni hukumu kɔnɔ

II. Baarakeminɛnw :
 Bɛlekisɛw, kalaninw ani fen wɛrɛw.

III. Taasira :
Baara kɛta : Kalandenw bɛ kalanin caman ton u ka tabali kan.
 Karamogo b'a jira ko tan-tansigi kulu kelen 0 kelen bɛ wele bi.
 Bi misaliw tigina bɛ kɛ walanba kan.

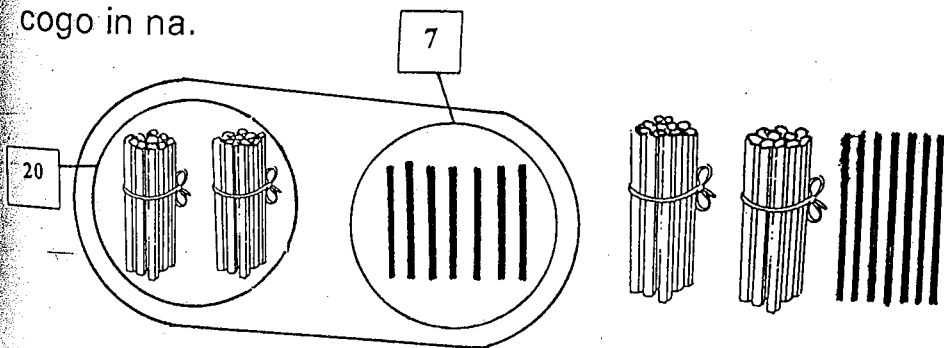


- Hake min ma tan bo kalandenw b'o dan k'o sɛben katimu kɔnɔ kelenw ka so.

bi	Ke

Kelen (ke)

Karamogo bɛ kalanden do ka baara tigina ke walanba kan nin cogo in na.

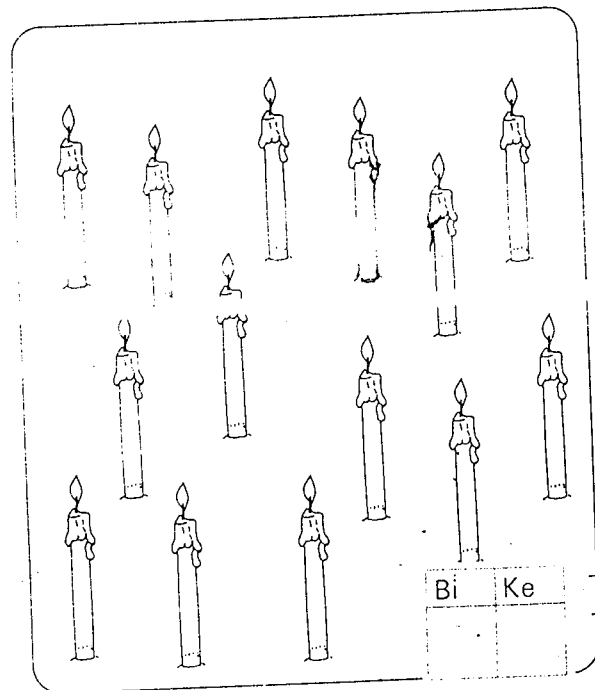


Janto : Nin kalansen in be daw kalanni n'u sebenni naga ya kalandenw bolo ni karamaga ye misaliw caya.

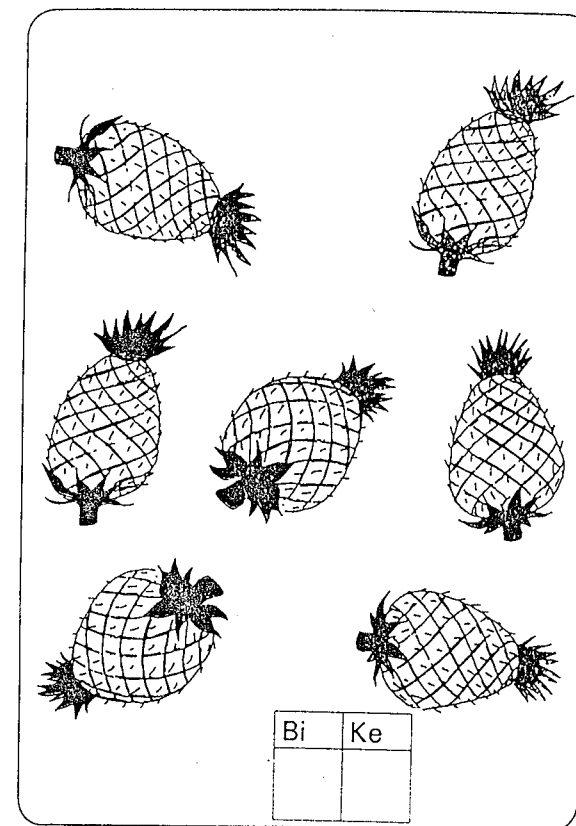
Kalasi : Katimu te dawere ye baarakeminen ka. Ni daw sigiyaraw donna u ka sow kana, u ka kan ka seben ka sara u te katimu kana.

Degeliw :

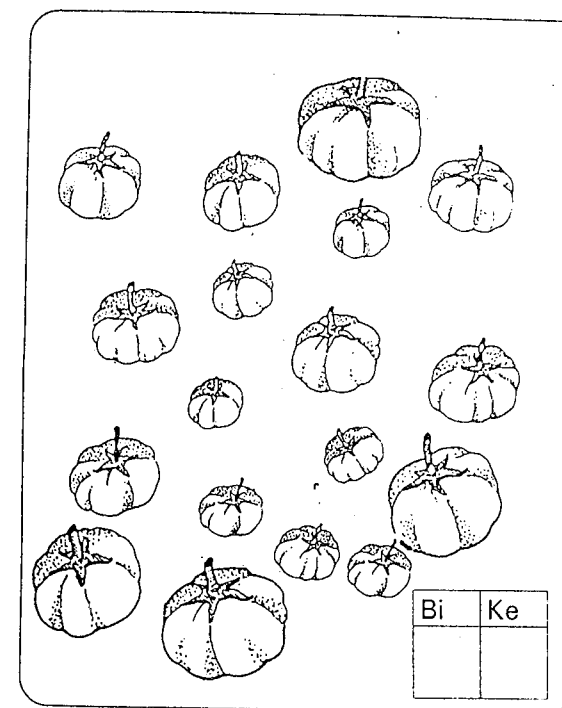
1. Nin koori konofenw tan-tansigi i ka biw hake seben biw ka so, ka kelenw hake seben kelenw ka so.



2. Jiriden ninnu fila-filakulusigi, i ka sebenniw dafa.



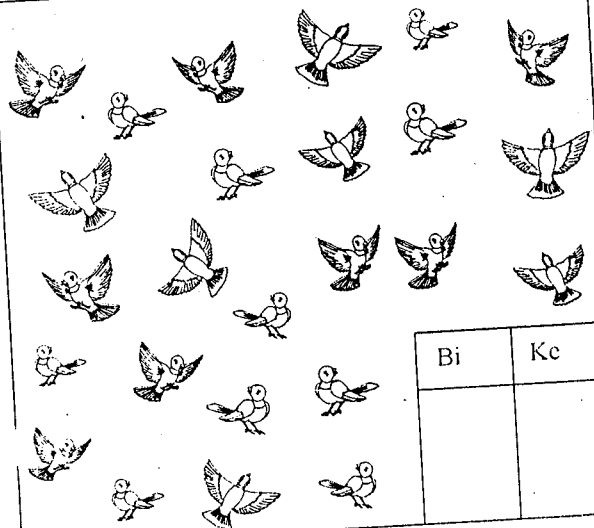
3. Jiriden ninnu duuru-duurukulusigi, i ka sebenniw dafa.



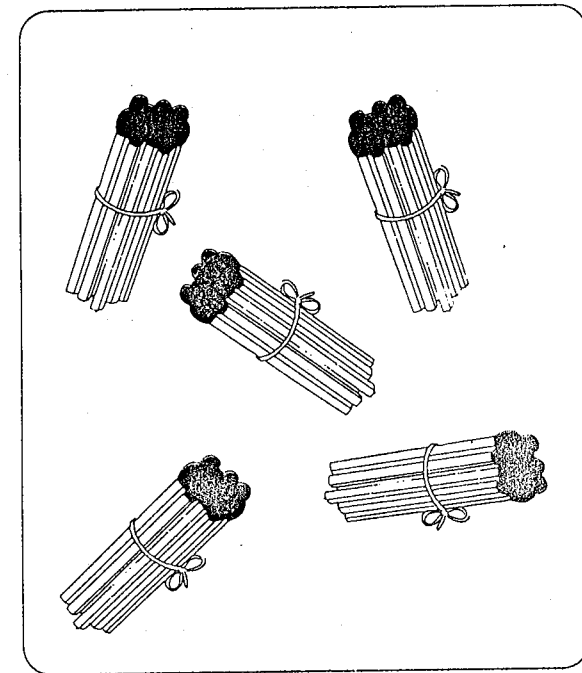
4. Da dilen laje duguma
i ka fen dow dilan minnu
n'a hake ka kan kene
cilen kono.

	Bi	Ke
	1	3

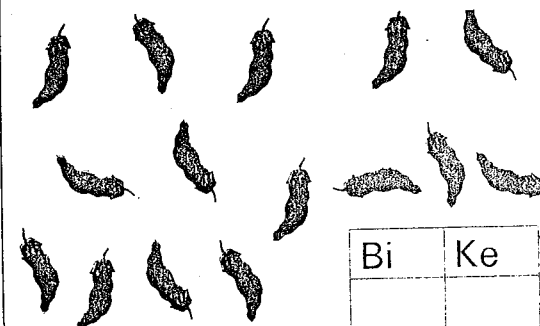
5. Kono bi fila ni kono duuru
file. U tan-tankulusigi ka
soro ka dugumakatimu
lafa.

	Bi	Ke

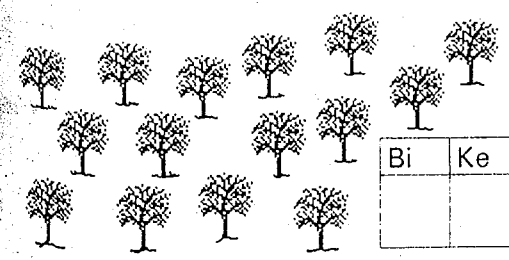
6. Takalakisesiri bi joli be yan ?

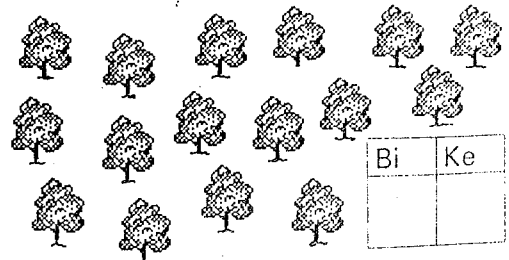


7. Forontow tan-tankulusigi, i ka sebenniw dafa.

	Bi	Ke

8. Jiri suguya ninnu tan-tankulusigi i ka katimu dafa duguma.

	Bi	Ke

	Bi	Ke

Kafoli : fɛn tɛ mara min na.

I. Kuntilemma : Kalansen laban na, kalanden ka kan ka se ka kafoli ke marata te min na.

II. Baarakeminɛnw : kalaninw, belɛkisɛw, furabuluw ani sigida fɛn wɛrɛw.

III. Taasira :

Baara kɛta 1 :

- Sanba ye namasaden 9 san foɓ. A tilala ka namasaden 5 wɛrɛ san

Sanba ka mamasaden sannen hake ye joli ye ?

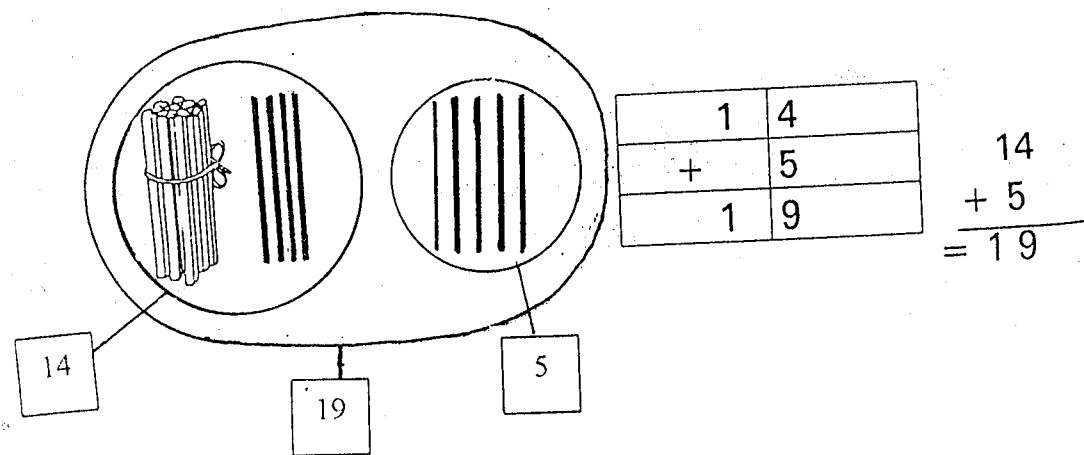
- Awa taara sugu la ni dɔrɔmɛ 13 ye, a dɔgɔnin Madu taara ni dɔrɔmɛ 6 ye .

Awa ni Madu ka wari bɛɛ lajɛlen ye dɔrɔmɛ joli ye ?

Baara kɛta 2 :

- Karamɔgɔ b'a jini kuluw fɛ u ka kalanin 14 dan k'u bila tabali fan do fɛ, ka 5 fana dan k'u bila tabali fan wɛrɛ fɛ, k'olu kafo k'u hake fo.

- Kalandenw b'o tigma ke walanninw kan k'a hake sɛben k'a jira.



- Kalandenw b'a jatesigi dalen n'a jaabi sɛben walanninw kan k'u jira . $14 + 5 = 19$

Baara kɛta 3 :

- Kalandenw bɛ misali caman ke nin cogo in na ni da fila walima saba ye ni fɛn wɛrɛw ye. O misaliw jatesigi dalen ni jɔlenw bɛ ke walanninw ni walanba kan.

- Yobi, Salina ani Seku Umaru taara jɛgɛ minɛ. Yobi ye jɛgɛden 3 minɛ, Salina ye jɛgɛden 10 minɛ, Seku Umaru ta kɛra 2 ye. Nin mɔgɔ saba ka jɛgɛ minɛnen ye joli ye ?

- Karamɔgɔba ye farasu 10 di cɛmanninw ma, ka 10 di musomanninw ma.

- Karamɔgɔba ye farasu den joli di kalandenw ma ?

Baara kɛta 4 : Nin jatesigiw jaabiw bɛ di kulubaaraw sɛnfɛ.

$$\begin{array}{r} 5 \\ + 4 \\ \hline 9 \end{array} \quad \begin{array}{r} 42 \\ + 12 \\ \hline 54 \end{array} \quad \begin{array}{r} 52 \\ + 7 \\ \hline 59 \end{array} \quad \begin{array}{r} 35 \\ + 13 \\ \hline 48 \end{array} \quad \begin{array}{r} 60 \\ + 5 \\ \hline 65 \end{array} \quad \begin{array}{r} 18 \\ + 10 \\ \hline 28 \end{array} \quad \begin{array}{r} 7 \\ + 2 \\ \hline 9 \end{array}$$

Degeliw

1. Jatesigi ninu dafa :

$8 + \dots = 10 ; 15 + \dots = 18 ; \dots + 16 = 19$

2. Jatesigi ninu dafa :

$12 = 10 + \dots ; 14 = 7 + \dots ; 20 = \dots + 10$

3. Dogɔya taamasiyen (<) ni kɛɛni taamasiyen (=) ke jatedenw ni jɔgɔn cɛ :

$4 + 6 \dots 11 ; 12 + 5 \dots 13 ; 14 \dots 10 + 4 ; 19 \dots 8 + 6$

Daw : k'a ta 20 na ka t'a bila 29 na

- I.Kuntilenna :** Kalansen laban na, kalanden ka kan ka se :
- ka daw soro, k'u kalan, k'u sɛbɛn ni jatedenw ni siginidenw ye k'a ta 20 na ka t'a bila 29 na
 - k'u waraka.
 - k'u sanga pɔgɔn ma k'a ta 0 la ka t'a bila 29 na.

II.Baarakeminɛnw :

Belekisɛw, kalaninw, katimu ani fɛn wɛrɛw

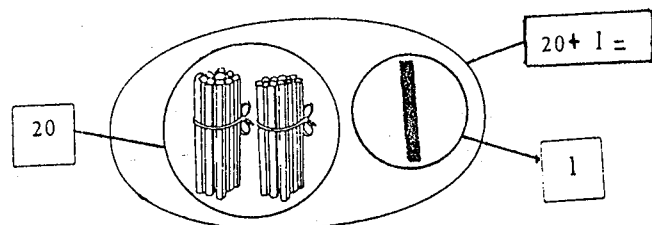
III.Taasira :

Baara keta 1 :

- kalandenw bɛ kalanin 20 (bikalasiri 2) ta ka kalanin kelen fara o kan, k'o dan k'o da fo (21).

Baara keta 2 :

- Bikalasiri 2 ninnu ni kalanin kelen tigma bɛ kɛ walanba kan k'u hake sɛbɛn u kɔrɔ nin cogo la :



- 21 bɛ sɛbɛn katimu kɔrɔ k'a pɛfo.

Bi	Kelen
2	1

- Da sɔrɔlɛn bɛ sɛbɛn walanba kan : 21
- Karamɔgɔ b'a kalan, kalandenw b'a fo a nɔfɛ ka soro k'a sɛbɛn ni jatedenw ye walanninw kan.

- Kalandenw b'a sɛbɛn u ka walanninw kan ni siginidenw ye, karamɔgɔ nɔfɛ nin cogo in na.

- | | | |
|-----------------|-----------------|----------------|
| 21, | 21, | 21 |
| mugan ni kelen, | mugan ni kelen, | mugan ni kelen |

Baara keta 3 :

21 sɔrɔla cogo min, da fɔw fana bɛ soro o cogo kelen na fo 29

Misali : $23 + 1 = 24$

$24 + 1 = 25$

$28 + 1 = 29$

Da sɔrɔlɛn bɛɛ bɛ sɛbɛn katimu kɔrɔ.

Kalɔsili : 21 ni 12 bɛ sɛbɛn walanba kan .

- biw ni kelenw bɛ danfara k'u hake fo.
- 21 sɛbɛncogo la 2 ye bi ye biw ka so.
- 12 sɛbɛncogo la 2 ye kelen ye kelenw ka so.

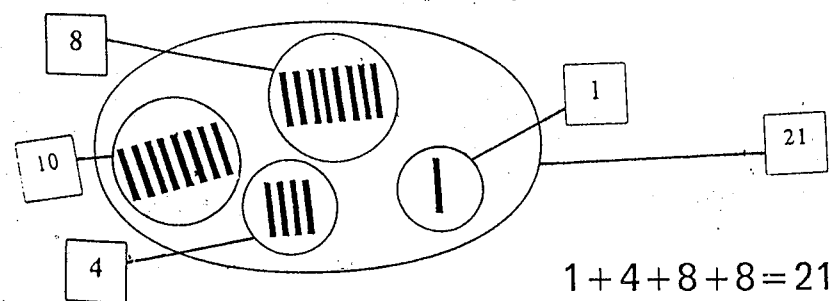
Baara keta 4 :

Daw sanganpɔgɔnmali la, walasa k'a don min ka ca ;biw de bɛ sanga pɔgɔn na fofo. N'olu ye kelen ye, i bɛ na kelenw na.

- Misali : $11 < 21$
- $21 > 12$
- $23 < 25$

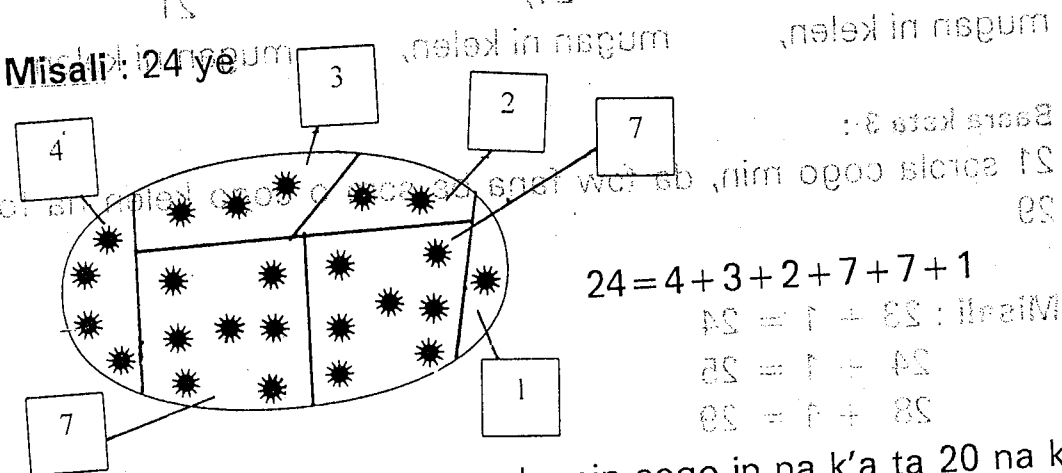
Baara keta 5 :

Kalandenw bɛ bila ka 21 sɔrɔcogo dɔ kɛ n'u ka minɛnw ye.



Da tow sɔrɔcɔgow be ke 21 ta cogo la.
 Baara keta 6 :
 - Da kelen-kelen be di kulu bee ma u k'o warakali dow ke.

Misali: 24 ye



- Da tow fana be se ka waraka nin cogo in na k'a ta 20 na ka t'a bila 29 na.

Degeliw

1. Daw seɓen ni jatedenw ye, a kana reme 29 kan
 1, 2, 3, 4, 5, 6, 7, 8, 9

Misali: 2 ni 9, 0 ye 29 ye

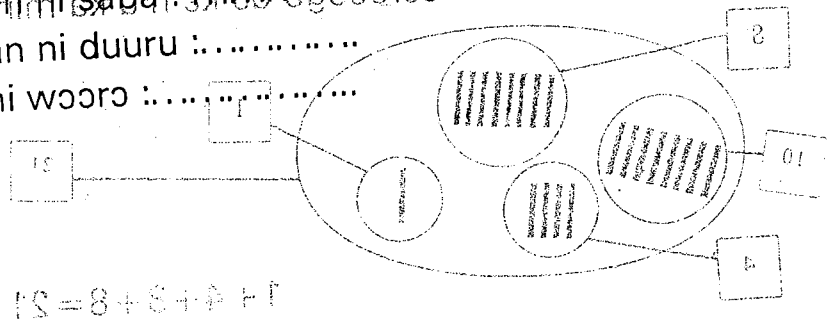
2. Daw seɓen k'a ta 20 na ka t'a bila 29 na.
3. Daw seɓen ka bo 29 na ka na 20 na.
4. Da ninnu seɓen k'a ta dogomannin na ka taa caman na.
 18, 13, 25, 12, 4, 0, 3

5. Nin daw seɓen ni jatedenw ye :

Mugan ni saba:

Mugan ni duuru :

Tan ni cawo :



6. Nin katimu dafa :

a)

$27 = 7 + \dots + 14 + \dots$

b)

$24 = \dots + 6 + \dots$

7. Nin daw seɓen ni signidenw ye :

$14 - 27 - 29 - 23$

8. Nin daw waraka ka ke sara saba ye.

$29 - 21 - 28 - 14$

Misali : $26 = 10 + 14 + 2$

9. Katimu dafa .

23	Bi... ni...	...
...	Bi... ni ...	10 + 7
...	Bi 2 ni 0	...
29	Bi... ni ...	...
...	Bi... ni ...	20 + 5

Wale minnu be na ni kafoli ye

I. Kuntilemma : Kalansen laban na, kalanden ka kan ka se :

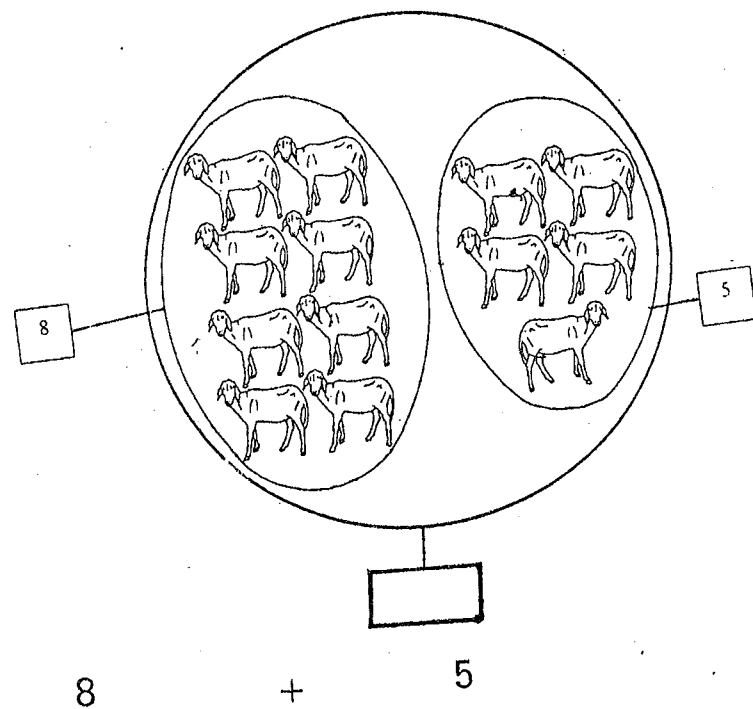
- ka kafoli walew danfara ka bo wale werew la ;
- ka kafoli waleya ;
- ka kafoli jatesigi seben, k'a jaabi di.

II. Baarakeminenw : kalandenminenw ni sigida fen werew.

III. Taasira :

Baara keta 1

- Saga 8 tun be Musa fe. A ye saga 5 san ka fara u kan. Musa ka saga kera joli ye ?
- Kalandenw be jatesigi ke jaw koro k'a jatedenw seben.



- Kalandenw be jatesigi seben cogoya fila la, k'a da $8 + 5 = \dots\dots\dots$ walima $5 + 8 = \dots\dots\dots$
- Kalandenw be jatepini jaabi di kumassen do koro : (Musa ka bagan hake ye 13 ye).

Baara keta 2 :

Segin be ke baara keta folo kan ni jatepini werew ye :

- Awa ye mangoro 14 kari sogoma, ka 5 kari wula fe
Awa ka mangoro karilen hake ye joli ye ?

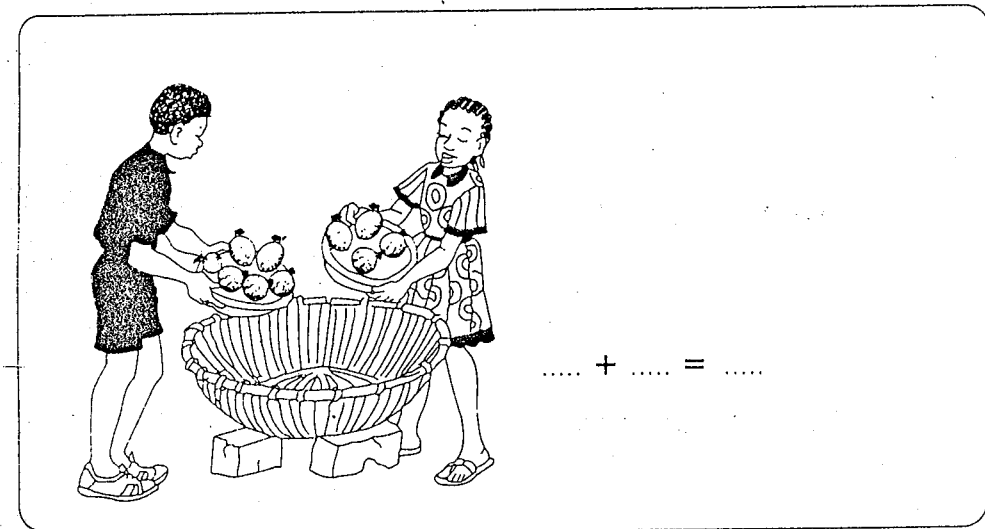
- Bikise 12 tun be Madu bolo sanni lafinsbo ce . Tulon senfe a ye bikise 13 soro.

Madu ka bikise hake ye joli ye sisan ?

- Ali Ba ye dorome 10 d'a ma ka dorome 9 di Mariyamu fana ma. Ali ni Mariyamu ka wari bee.lajelen ye joli ye ?

Degeliw

1. Dorome 5 tun be Madu bolo, a fa ye dorome saba di a ma. Dorome joli be Madu bolo ?
2. Kamifan 15 tun be segi koro, Asa ye kamifan 13 fara o kan. Kamifan joli be segi koro ?
3. Mobili wulila ni mogo 22 ye. A joko folo, mogo 5 donna. Joko filanan mogo 2 donna. Sisan, mogo joli be mobili koro ?
4. Da kafotaw n'u jaabi seben ka soro ka ja pefo.

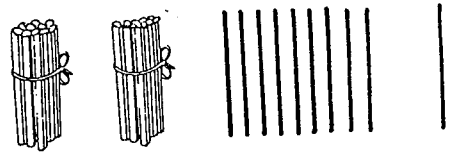


Da 30

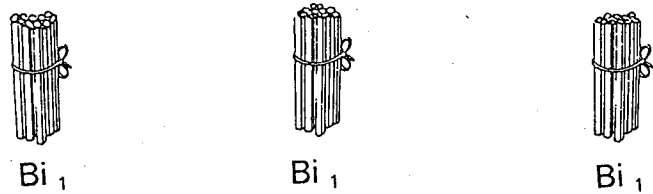
I Kuntilenna : kalansen laban na, kalanden ka kan ka se :
 - Ka 30 soro, k'a kalan, k'a saba ni jatedenw ni siginidenw ye.
 - Ka 30 waraka

II. Baarakeminenw :
 Belekisew, kalaninw, bikalasiriw ani fen werew

III. Taasira :
Baara keta 1 : Kalandenw be kalanin 29 dan ka soro ka kelen fara o kan ka da sorolen fo



- Kalaninw tigina be tan- tankulusigi walanba ni walanninw kan.
 - Bihake be saba kalaninw tigina koro nin cogo la:



- Kalandenw be bihake fo k'a saba kalaninw katimu koro biw ka so.

Bi	Ke
3	

- O ko, u be soro ka kelenw hake fo k'o fana saba kalaninw katimu koro kelenw ka so.

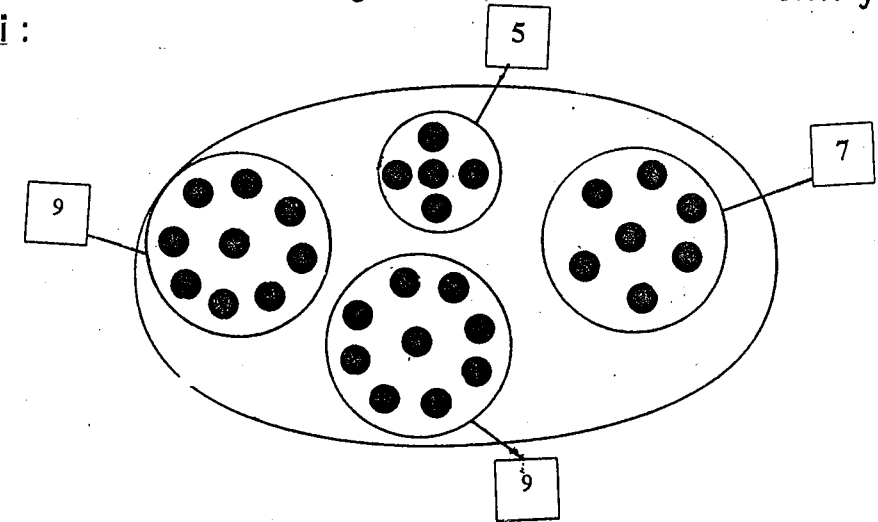
Bi	Ke
3	0

- 30 be saba walanba ni walanninw kan ni jatedenw ni siginidenw ye.

30, 30, 30.....
 bi saba bi saba bi saba

Baara keta 2 :

- Kalandenw be 30 sorocogo do ke n'u bolokarminenw ye
Misali :

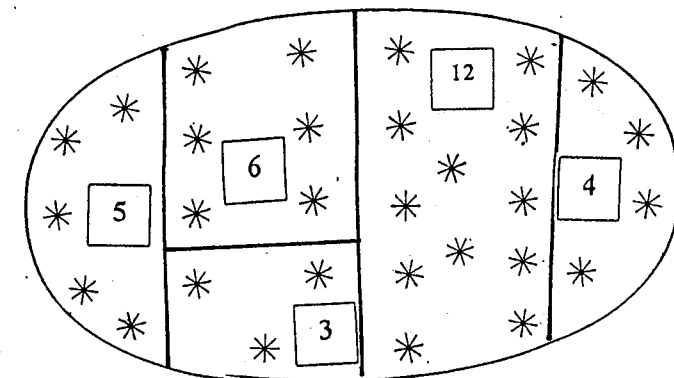


$$9 + 9 + 7 + 5 = 30$$

Baara keta 3 :

- Kalanin 30 be ta kulu bee fe, k'a waraka.

Misali :



$$30 = 5 + 6 + 3 + 12 + 4$$

Degeliw :

1) Kalandenw be nin daw seben katimu kono :

24 26 28

2) 30 waraka k'a ke sara 2 ye sije 2 ka soro k'a ke sara 3 ye sije 3 :

Misali : $30 = 26 + 4$

$$30 = 15 + 10 + 5$$

3) 30 sorocogo 3 ke .

4) Nin daw sigi jigon ko ka bo caman na ka na dogomannin na ani k'u seben k'a ta dogomannin na ka t'a bila caman na.

$$21 - 7 - 17 - 24 - 23 - 25 - 30 - 28$$

5) Da ninu seben ni jatedenw ye:

- mugan ni wolonwula
- Tan ni woro :
- Seegin :
- Mugan ni kononton :
- Bi saba :

Seginkanni :

1. Nin jatesigiw jaabiw pini :

$$11 + 12 =$$

$$13 + 5 =$$

$$14 + 15 =$$

$$12 + 10 + 5 =$$

$$15 + 2 + 11 =$$

2. Nin jatesigiw jaabiw pini :

11	20	16	17	20
+ 8	+ 3	+ 10	+ 12	+ 10
+ 5				
=	=	=	=	=

3. Katimu in dafa

+	10	14	13	11	3
10		24			
14					
13					
11	21				
3			14		

4. Jateɓiniw :

- Penda ye kamifan 16 feere soƙoma, ka 12 feere wula fe.
Penda ka kamifan feerelen benna joli ma ?

- Kunun, Musa taara mɓnnikeyoro la. A ye jɛgeden 12 mins
soƙoma ka 14 mins wula fe.

Musa ye jɛgeden joli soro ?

- Bikise 13 be Sidi bolo. A kɔrɔke ye bikise 10 di a ma. A terike
Baru fana ye bikise 5 di a ma.

Sidi ka bikise ye joli ye ?

5. Katimu in dafa

+				11	7	2
3						
1						
5						
2	10	3	9			
4						

Dɔbɔli kun

I. Kuntilenna : kalansen laban na, kalanden ka kan ka se :

- ka dɔbɔli kekun don .

- ka dɔbɔli taamasiyen ke.

II. Baarakɛninɛnw :

Kalandenw, kalanso konominɛnw ani fen werɛw.

III. Taasira :

Baara keta 1 :

Kulu beɛ be kalanin 7 ta ka 3 dan ka b'o la . Kalanin to nake
be jate k'o da fo.

Jininkali be ke ni do farala walima ni do bora kalanin hake la.

Tigina be ke k'a jira k'a jefo.



Jatesigi be seben walanba kan k'a kalan :

- ka bo kinin fe ka taa numan fe :

$$7 - 3 = 4$$

3 bolen 7 la o to ye 4 ye.

- Ka bo numan fe ka taa kinin fe :

7 deselen ni 3 ye o ye 4 ye.

* Nin taamasiyen in « _ » ye dɔbɔli taamasiyen ye. A be wele
« dɔbolan ».

* Nin taamasiyen in « = » ye keɓeni taamasiyen ye.

A be wele « keɓenan ». A be se ka fo fana « o ye ».

Baara keta 2 :

Kalanin 9 be karamogo ka tabali kan, 4 binna.

kalanin to be dan k'o da fo. Kuluw b'o tigina ke k'a jefo, ka
tila ka jatesigi dalen ke.

$$9 - 4 = 5$$

Baara keta 3.

Kulu folo kalandenw ye 6 ye, musomanninw ye 4 ye, Cemanninw ye joli ye ? kalandenw b'o waleya, k'o tigena ke k'a nefa k'a soro k'a jatesigi seben walanba kan.

Baara keta 4 :

Kalanden 10 be wele k'u jo nefa. Kalandenw hake be seben walanba ni walanninw kan. Musomanninw be t'u sigi, Cemanninw hake be dan. Nininkali be soro ka ke walasa ka musomanninw hake don .

Tigena be ke, k'a jatesigi seben k'o kalan.

Baara Keta 5 :

Misali werew be se ka ke ni fen werew ye.

Degeliw

1- Nin degeli in be se ka ke farikolon senfa.

Kalandenw be tila kulu 4 ye.

Kulu 1 olo = kalanden 2

Kulu 2nan kalanden 4

Kulu 3 nan kalanden 7

Kulu 4 nan kalanden 10

Soden 10 be ci kene kan ka kalandenw jo k'u lamini.

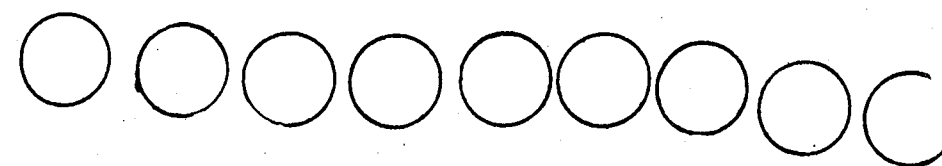
A be fo kuluw ye, ni min donna sodenw konso ka bo, u ye soden hake minnu mine, u k'o jatemine.

Ka jatesigi ke ka so lankolonw da seben.

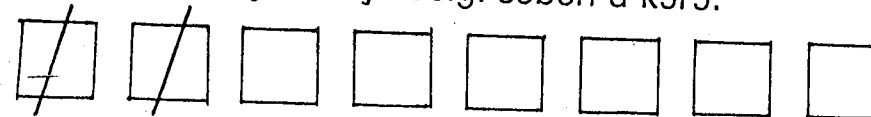
A be jini o ko kuluw fe u ka don kelen - Kelen ka bo.

Nin walew bannen ko, kulu bee b'a ka jatesigi seben walanba kan k'a jaabi di.

2.Koori 9 file, 3 tije i k'a jatesigi seben a koro.



3.Kareninw laje i ka jatesigi seben u koro.

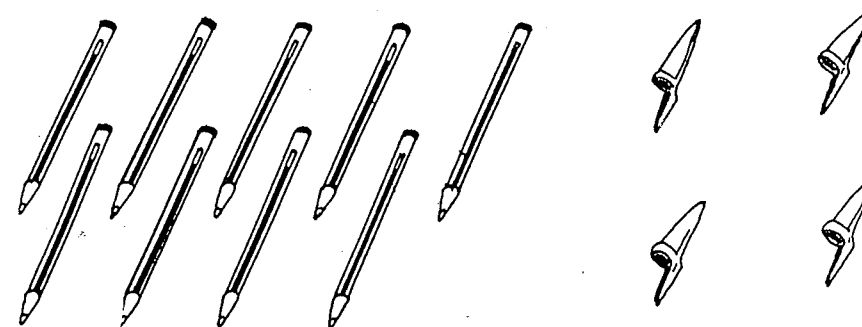


4.Jatesigi laje i ka keresaba fagataw faga

$12 - 8 = 4$



5.Joli be datugulan je ?



6.Ƙononin 11 sigilen be jiri sanfe . Donsokɛ ye mugu ci u la, 2 binna. Ƙononin joli kisira ?



Daw k'a ta 30 la ka t'a bila 39 na.

I.Kuntilenna : kalansen laban na, kalanden ka kan ka se :

-Ka daw soro, k'u kalan , k'u seben ni jatedenw ni siginidenw ye k'a ta 30 la ka t'a bila 39 na .

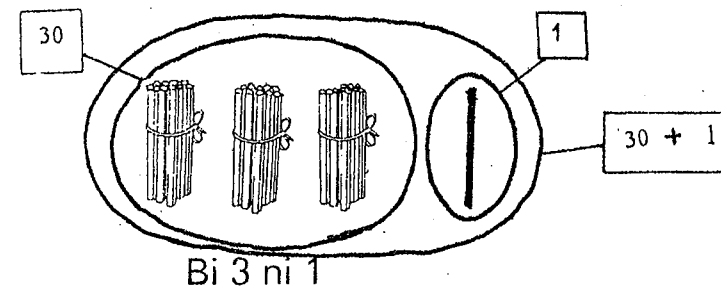
- k'u waraka
- k'u sanga jogon ma.

II.Baarakeminenw ,kalaninw,katimu ani fen werew.

III.Taasira

Baara keta 1 :

- Kalandenw be kalanin 30 (bikalasiri 3) ta ka kala kelen fara o kan k'u dan k'a fo : bi 3 ni 1
- Bikalasiri 3 ninnu ni kala kelen tigina be ke walanba kan k'u hake seben u koro nin cogo la :



-Bi 3 ni 1 be seben katimu kono :

Bi	Ke
3	1

- Da sorolen be seben walanba kan.
- Kalandenw b'a kalan, k'a seben u ka walanninw kan ni jatedenw ni siginidenw ye :

31, 31 31
bi saba ni kelen Bi saba ni kelen Bi saba ni kelen

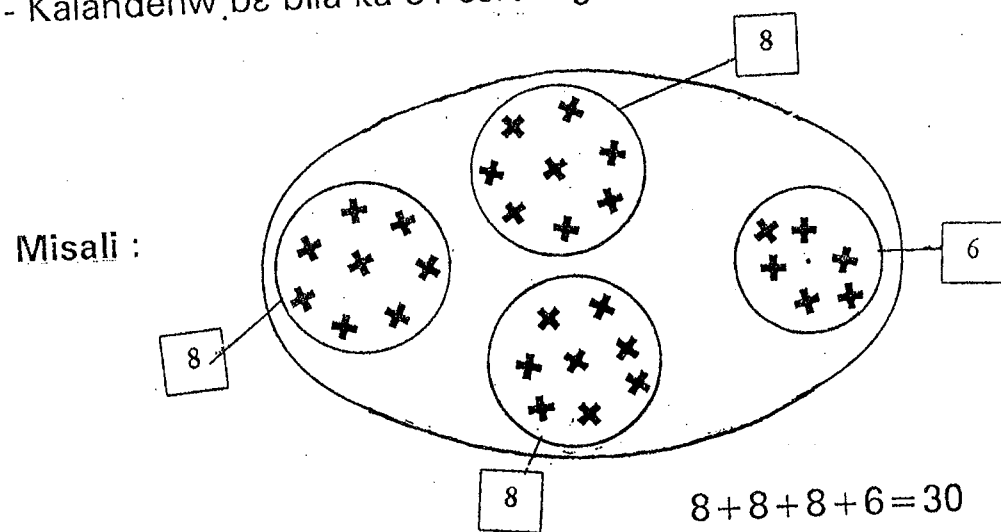
- 31 sɔrɔla cogo min, da tow sɔrɔli be ke o cogo kelen na fo ka se 39 ma.

Misali : $31 + 1 = 32$
 $32 + 1 = 33$
 $34 + 1 = 35$
 $37 + 1 = 38$

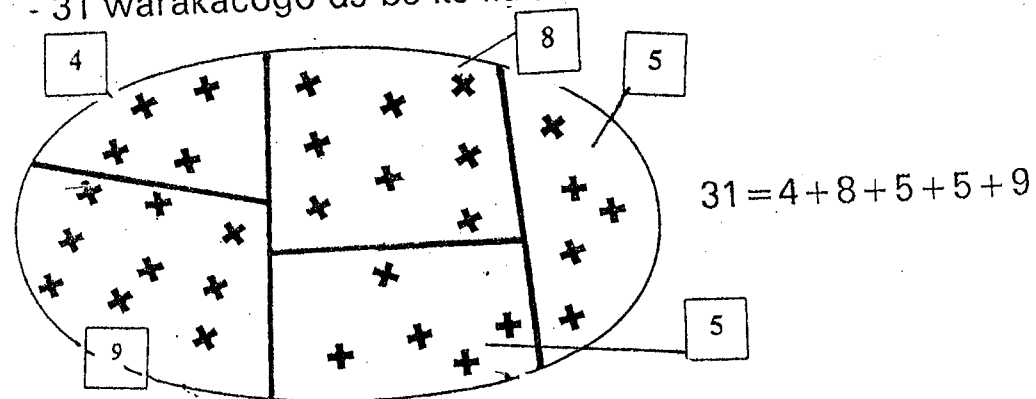
Da sɔrɔlenw bee be seben katimu kɔnɔ.

Baara keta 2 :

- Kalandenw be bila ka 31 sɔrɔcogo da ke n'u bolominenw ye.



Da tow kelenkelenna sɔrɔcogow be waleya nin cogo in na.
 - 31 warakacogo da be ke kalandenw fe.



Baara keta 3 :

Daw kelen -kelen be di kulu bee ma u k'o warakali dow ke
 Misali : 34 ye

Da tow fana be waraka nin cogo in na k'a ta 30 la ka t'a bila 39 na.

Baara keta 4 : Nin daw sanga jɔgɔn ma :

31.....32

34.....35

37.....30

39.....30+4

35.....31+5

Degeliw :

1. Daw seben k'a ta 30 la ka t'a bila 39 na.
2. Daw seben ka bo 39 na ka na 30 la.
3. Da ninu seben k'a ta dogomannin na ka t'a bila caman na.
 $3 - 28 - 23 - 39 - 32, 1, 12 - 6$

4. Nin katimuw dafa

$$38 = 7 + \dots + 18 + \dots$$

$$35 = 9 + \dots + 12$$

5. Nin daw waraka ka ke sara saba ye.

39 , 31, 38, 14

Misali : $32 = 18 + 14$

$32 = 10 + 12 + 10$

6. Taamasiyen numan (<, >, =) bila tomiw no na .

$3 + 4 \dots 7$

$4 + 3 \dots 1$

$30 \dots 27 + 3$

$38 \dots 24$

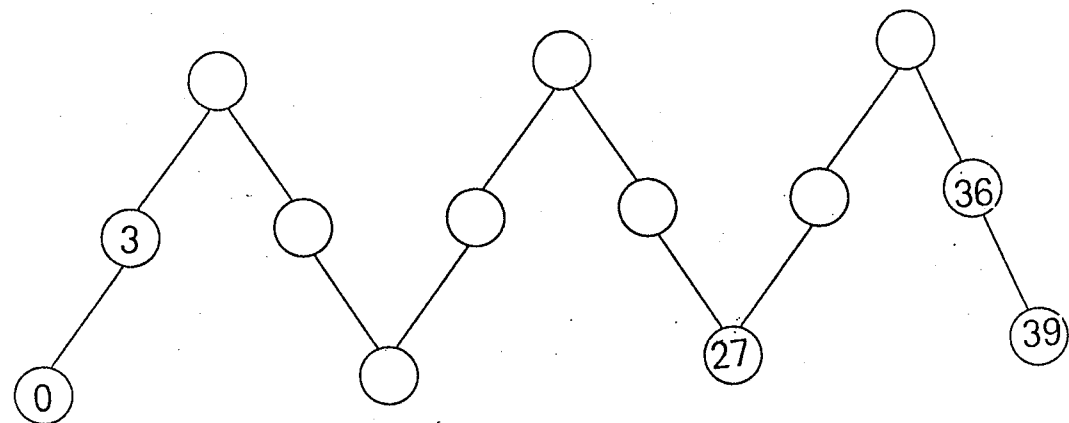
$35 \dots 13 + 22$

$32 \dots 37$

7. Katimu dafa ni daw ye minnu be na da dilenw ne walima u ko.

27	28	29
---	37	---
---	15	---
---	31	---

8- Da minnu be se ka ke kooriw kono, olu seben ka tugu da dilenw na.



Doboli kecogo

I. **Kuntilenna** : kalansen laban na, kalanden ka kan ka se :
- ka doboli ke.

II. **Baarakeminenw** :

Kalandenw, kalanso konominenw ani fen werew

III. **Taasira** :

Baara keta 1

kalandenw hake ye 25 ye. Kalanden 12 ma na.

Kalanden joli nana ?

Kuluw be jaabi nini k'a nefa.

U be jatesigi seben walanba kan, k'a kalan.

Baara keta 2

Jatesigi in be waleya ni kalaninw ye kalandenw fe, k'a tigina ke k'a nefa.



$25 - 12 = 13$

Baara keta 3

Katimu be ci, ka daw sigi o kono, ka jatesigi kecogo nefa.

bi	kelen
2	5
1	2
1	3

Kelenw be seben kelenw ka so, biw be seben biw ka so .
Doboli la, dugumada de be bo sanfeta la, k'a damine kinin fe
kelenw ka so ka taa numan fe biw ka so.

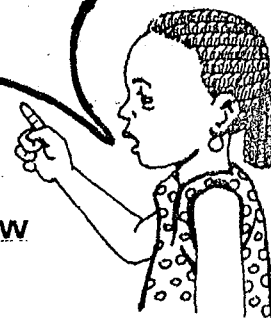
- Kelenw ka so ; 2 bolen 5 la, o to ye 3 ye 3 be seben 2 jukoro.
- biw ka so : 1 bolen 2la , o to ye 1 ye 1 be seben 1 jukoro !

Baara keta 4 : doboli be ke jatesigi jolen

$$\begin{array}{r} 25 \\ - 12 \\ \hline \end{array}$$

Nin baara keta ninnu jagonnaw be se ka ke ni kalaninw ni fen werew ye.

Marata : Doboli sanfe, da caman be seben sanfe ka da dogomannin seben jukoro. Kelenw be bo kelenw na, biw be bo biw la, ka bo duguma ka taa sanfe. Da dogomannin de be bo da belebele la tuma bee.



Degeliw

1. Kulubaara .

Jatesigi ninnu seben katimu kono k'u jaabiw jini :

26-4 ; 30-20 ; 16-3 ; 25-12 ; 27-27 ;

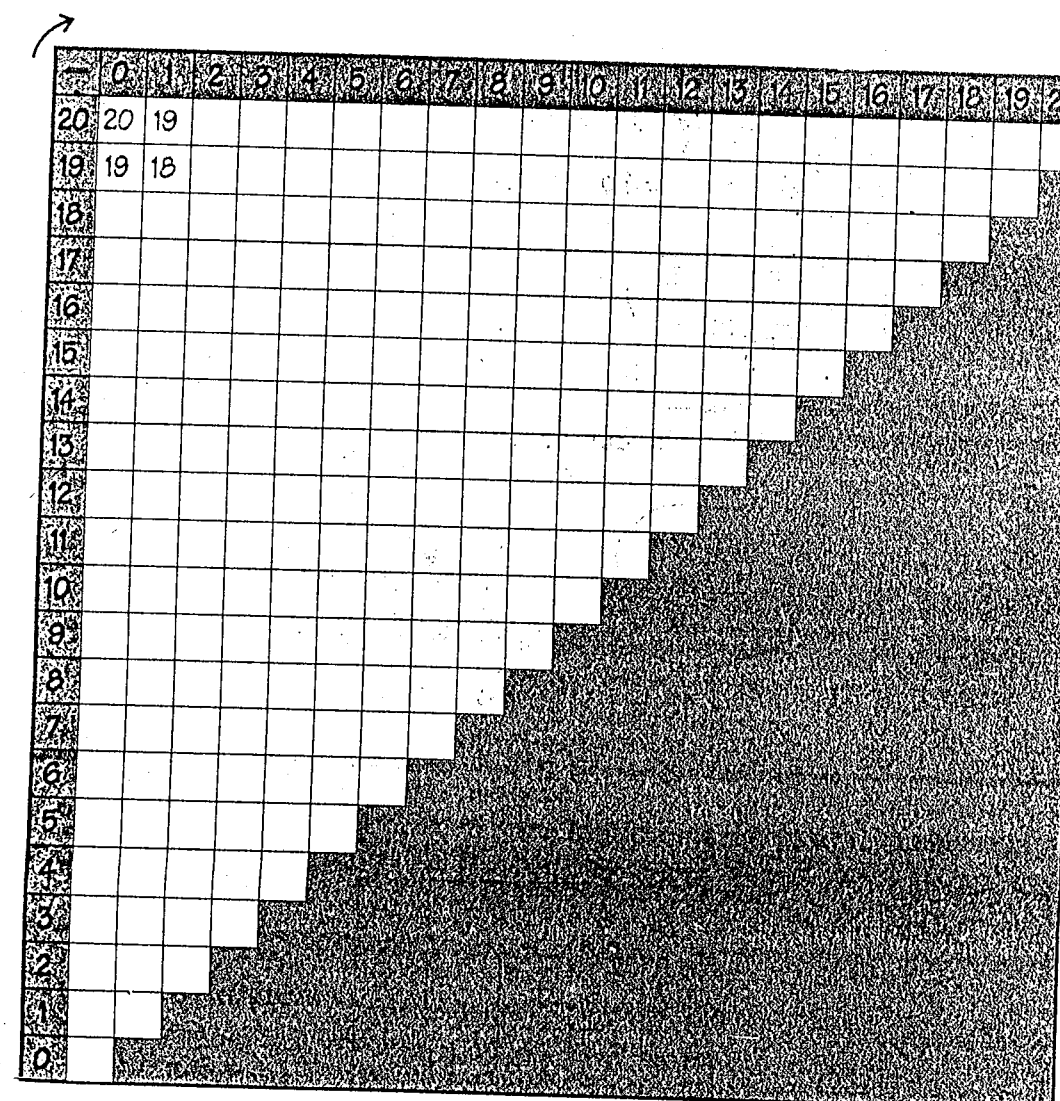
2. Jatesigi ninnu jaabi jini .

$$\begin{array}{r} 8 \\ -7 \\ \hline = \end{array} \quad \begin{array}{r} 16 \\ - 6 \\ \hline = \end{array} \quad \begin{array}{r} 25 \\ - 25 \\ \hline = \end{array} \quad \begin{array}{r} 30 \\ - 20 \\ \hline = \end{array} \quad \begin{array}{r} 21 \\ - 11 \\ \hline = \end{array}$$

3. Jatesigi ninnu dafa

$$\begin{array}{r} 29 \\ - 13 \\ \hline = 16 \end{array} \quad \begin{array}{r} 17 \\ - \dots \\ \hline = 10 \end{array} \quad \begin{array}{r} 4 \\ - 21 \\ \hline = -17 \end{array} \quad \begin{array}{r} 30 \\ - \dots \\ \hline = 30 \end{array} \quad \begin{array}{r} 28 \\ - 18 \\ \hline = 10 \end{array} \quad \begin{array}{r} \dots \\ - 14 \\ \hline = -14 \end{array}$$

4. Doboliw ke ka katimu dafa



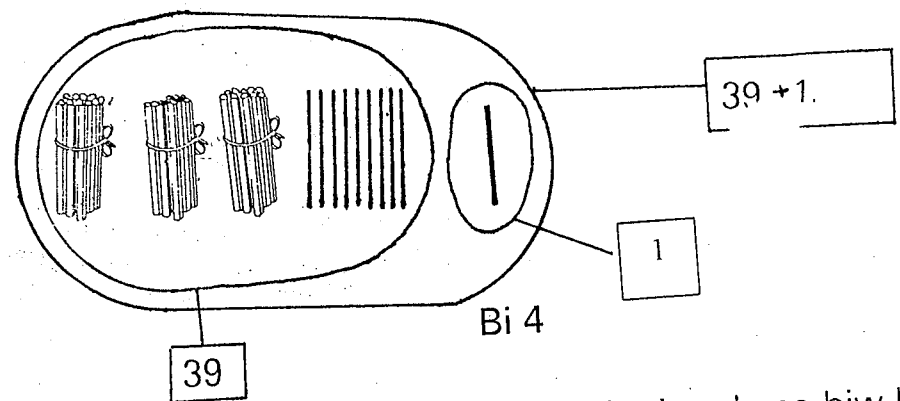
Da 40

I Kuntilenna : Kalansen laban na kalanden ka kan ka se :
 - ka 40 saro, k'a kalan, k'a sɛben ni jatedenw ni siginindenw ye.
 - ka 40 waraka.

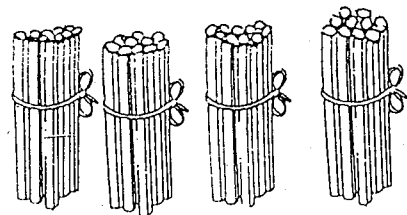
II. Baarakeminɛnw :
 Belɛkisɛw , bikalasiriw ani fɛn wɛrɛw.

III. Taasira :

Baara kɛta 1 : Kalandenw bɛ kalanin 39 dan ka kelen fara u kan, k'u bikalasiri
 - Kalaninw tigina bɛ tan-tankulusigi walanba ni walanninw kan.
 - Bihakɛ bɛ sɛben kalasiriw tigina kɔɔ nin cogo la :



- Kalanden bɛ bihakɛ fɔ k'a sɛben katimu kɔɔ biw ka so.



Bi	Ke
4	

- O kɔ u bɛ sɔɔ ka kelɛnw hake fɔ k'o fana sɛben katimu kɔɔ kelenw ka so.

Bi	Ke
4	0

- 40 bɛ sɛben walanba ni walanninw kan ni jatedenw ni siginindenw ye.

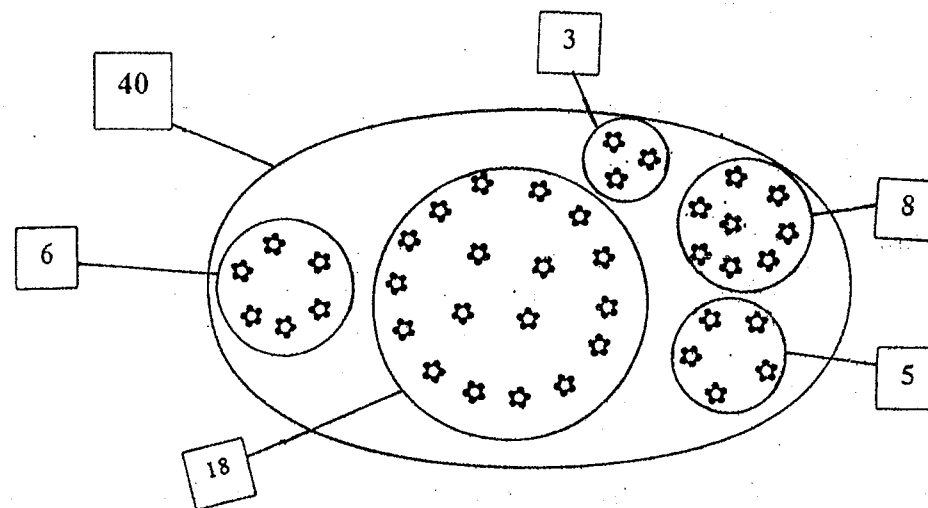
40
Bi naani

40
Bi naani

40
Bi naani

Baara kɛta 2 :

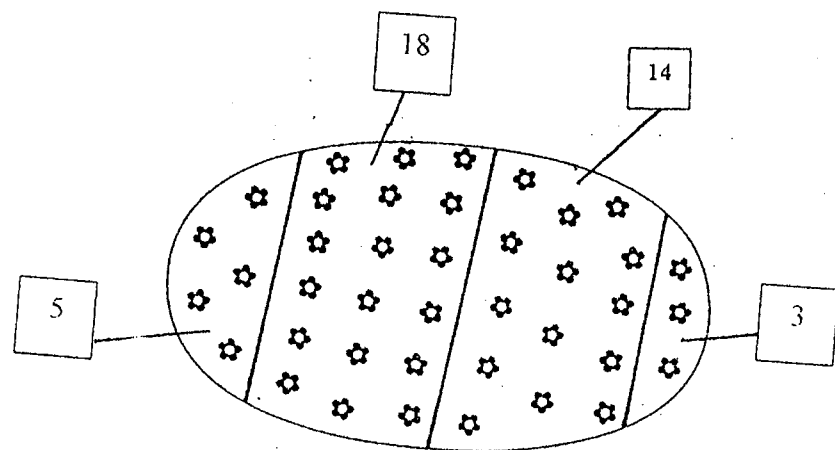
- Kalandenw bɛ 40 sɔɔcogo dɔ kɛ n'u bolokɔminɛnw ye.



$$6 + 18 + 3 + 5 + 8 = 40$$

Baara keta 3 :
Kalanin 40 be ta kulu bee fe k'a waraka

Misali :



$$40 = 3 + 14 + 18 + 5$$

Degeliw

1) Kalandenw be nin daw seben katimu kono

34 26 38 40

2) 40 be waraka ka ke sara 2 ye sije 2 ka soro k'a ke sara saba ye sije 3

Misali :

$$40 = 36 + 4$$

$$40 = 25 + 10 + 5$$

3) 40 sorocogo 3 ke

4) Nin daw sigi ngon ko ka bo caman na ka na dogomannin na ani k'a ta dogomannin na ka t'a bila caman na.

21 - 7 - 17 - 24 - 23 - 25 - 30 - 28 - 40

5) Taamasiyen numan $<$, $>$, $=$ bila tomiw no na.

$$4 \neq 8 \dots\dots\dots 12$$

$$5 - 3 \dots\dots\dots 2$$

$$40 \dots\dots\dots 34 + 3$$

$$39 \dots\dots\dots 24$$

6) Da ninu seben ni jatedenw ye

Bi saba ni seegin :

Bi saba ni naani :

Bi saba ni saba :

Bi naani :

7) Nin daw seben ni signidenw ye.

$$39 : \dots\dots\dots$$

$$40 : \dots\dots\dots$$

$$17 : \dots\dots\dots$$

$$5 : \dots\dots\dots$$

Dɔbɔli marata tɛ min na

I. Kuntilenna : Kalansen laban na, kalanden ka kan ka se :
- ka dɔbɔli kɛ marata tɛ min na.

II. Baarakɛminɛnw : kalaninw, bɛlɛkisɛw, fɛn wɛrɛw

III. Taasira :

Baara kɛta 1. Kulubaara

Kulu kelen o kelen bɛ kalanin 45 da tabali kan.

Kulu kelen o kelen bɛ sɔrɔ ka kalanin 12 bɔ kalanin 45 in na

0 tigena bɛ kɛ walanba kan

Kalandenw bɛ kalanin tɔ dan k'a fo.

Waleya in jatesigi bɛ sɛbɛn walanba kan :

$$45 - 12 = 33 \text{ walima}$$

Bi	Kelen
4	5
- 1	2
= 3	3

Jatesigi jaabi jinicogo bɛ fo.

Kelenw ka so : 2 bɔlen 5 la, o tɔ ye 3 ye

3 bɛ sɛbɛn kelennw ka so 2 jukɔrɔ

Biw ka so : 1 bɔlen 4 la, o tɔ ye 3 ye.

3 bɛ sɛbɛn biw ka so 1 jukɔrɔ.

Baara kɛta 2.

-Walanta don, gafe 47 tun bɛ kalanso dɔ kɔnɔ.

Walanbila don, gafe 31 numan de yera .

Gafe joli tijɛna ?

Kuluw bɛ jatesigi sɛbɛn k'a jaabi jini k'o sɛbɛn.

Baara kɛta 2.

-Walanta don, gafe 47 tun bɛ kalanso dɔ kɔnɔ.

Walanbila don, gafe 31 numan de yera .

Gafe joli tijɛna ?

Kuluw bɛ jatesigi sɛbɛn k'a jaabi jini k'o sɛbɛn.

$$\begin{array}{r} 47 \\ - 31 \\ \hline \end{array}$$

$$= 16$$

kulu dɔ kalanden bɛ na walanba la, ka jatesigi sɛbɛn, k'a jaabi jinicogo fo.

Baara kɛta 3.

Kelennabaara

Dɔrɔmɛ 38 tun bɛ Fanta bolo. A ye sɛbɛnnikelan dɔ san 15.

Fanta ka wari tɔ ye joli ye ?

Degeliw :

1. Jaabiw sɛbɛn

$$\begin{array}{r} 27 \\ - 12 \\ \hline \end{array} \quad \begin{array}{r} 39 \\ - 16 \\ \hline \end{array} \quad \begin{array}{r} 48 \\ - 35 \\ \hline \end{array} \quad \begin{array}{r} 49 \\ - 49 \\ \hline \end{array}$$

2. Jatesigiw dafa

$$7 - 3 = \dots$$

$$27 - 12 = \dots$$

$$19 - 9 = \dots$$

$$46 - 12 = \dots$$

3. Zanga ye nɔgɔbɔrɛ 34 san. A ye 22 kɛ foro la.

Nɔgɔbɔrɛ tɔ ye joli ye ?

4. Karamɔgo donna kalanso kɔnɔ ni walannin 58 ye.

A ye 45 di kalandenw ma, k'a tɔ bila alimɔri kɔnɔ.

Walanninw tɔ ye joli ye ?

Daw k'a ta 40 na ka t'a bila 49 na .

I.Kuntilemma : Kalansen laban na, kalanden ka kan ka se :

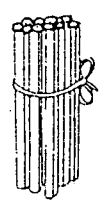
- Ka daw soro, k'u kalan, k'u sɛben ni jatedenw ni siginidenw ye k'a ta 40 na ka t'a bila 49 na.
- ka daw sanga jɔgon ma

II.Baarakeminɛnw : Kalaninw, belɛkisɛw, furabuluw ani sigida fɛn wɛrɛw.

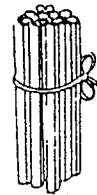
III.Taasira :

Baara kɛta 1 :

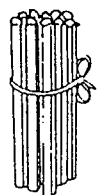
- Karamogo bɛ kalanin 40 (bikalasiri 4) mine a kininbolo la ka kalanin 1 mine a numanbolo la, k'olu jira kalandenw na.
- Kala 1 in bɛ fara bikalasiri 4 kan, ka kalandenw jininka o haɛe la.
- O tigin a bɛ kɛ walanba la k'a jateden sɛben a koro.



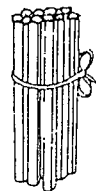
Bi 1



Bi 1



Bi 1



Bi 1

1

Bi 4 ni 1

41 bɛ sɛben daw katimu koro

Bi	Ke
4	1

k'a kalan. (bi naani ni kelen)

- Kalandenw bɛ 41 sɛben ni jatedenw ni siginidenw ye walanninw kan k'a kalan.

Baara kɛta 2 :

Kalandenw bɛ 41 soroɔcogo daw waleya kuluw la ni kalaninw, belɛkisɛw, furabuluw walima sigida fɛn wɛrɛw ye.

Baara kɛta 3 :

- Kalandenw bɛ 41 warakali kɛ n'u ka minɛninw ye k'u sɛben walanninw kan.

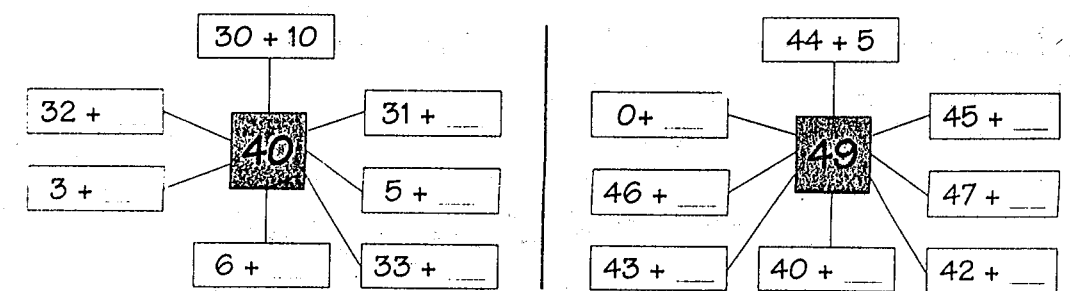
Misali : $41 = 10 + 14 + 7 + 5 + 5$

Janto : Nin taasira kelen in bɛ kɛ ni da tow ye k'a ta 42 la ka t'a bila 49 na.

Baara kɛta 4 : Daw bɛ sanga jɔgon ma.

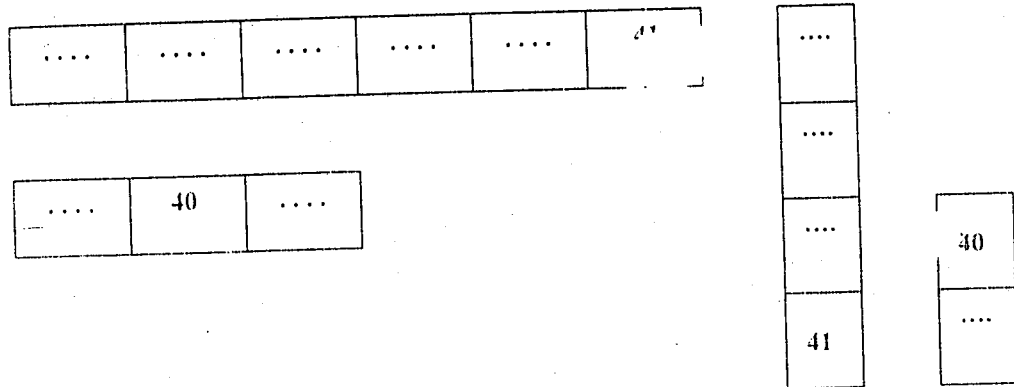
Baara kɛta 5 :

- Da kafota dafa ni da wɛrɛ ye ka cɛmanɛɔdaw soro (40 ni 49)



Degeliw

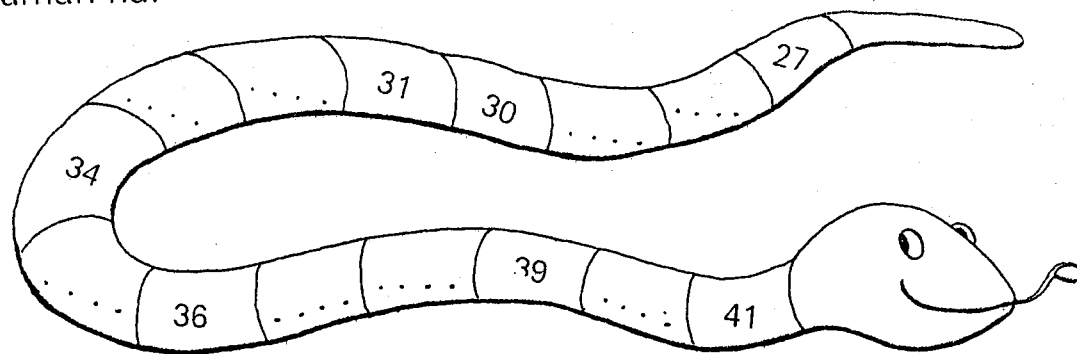
1- Nin katimu ninnu dafa k'a ta da dogomannin na ka na, da caman na, ka bo numan fe ka taa kinin fe walima ka bo sanfe ka na duguma.



2. Nin katimuw bolo di jagon ma ni kalaninw ye ka bo da caman na ka na da dogomanninw na.

37 36
41 35
39 40

3. Daw seben kooriw konɔ k'a ta da dogomannin na ka t'a bila da caman na.



Wale minnu be na ni doboli ye.

I. **Kuntilenna** : Kalansen laban na, kalanden ka kan ka se
- ka doboli walew danfara ka bo wale werew la.
- Ka doboli waleya.
- Ka doboli jatesigi seben k'a jaabi di.

II. **Baarakeminɛnw** : minen fen o fen.

III. **Taasira** :

Baara keta 1 : Lenburuba 9 tun be Kaja ka segi konɔ. A ye lenburuba 6 feere u la. Kaja ka lenburuba to ye joli ye ?
- Kalanden do be Kaja ka feereli in waleya.
- Kalandenw be feereli jatesigi seben = $9 - 6 =$
- Kalandenw be jaabi fo kumasan konɔ : « a to ye lenburuba 3 ye ».

Baara keta 2.

Kamifan 8 tun be Madu bolo, 3 binna ka ci. Kamifan to ye joli ye ?
- Kalandenw be kamifanci in waleya ni belɛkise ye. Kalandenw be jaabi jini k'a fo.
Jatesigi be seben : $8 - 3 = \dots$
- Kalanden be jaabi fo kumasan konɔ : « Madu ka kamifan to ye 5 ye ».

Baara keta 3 :

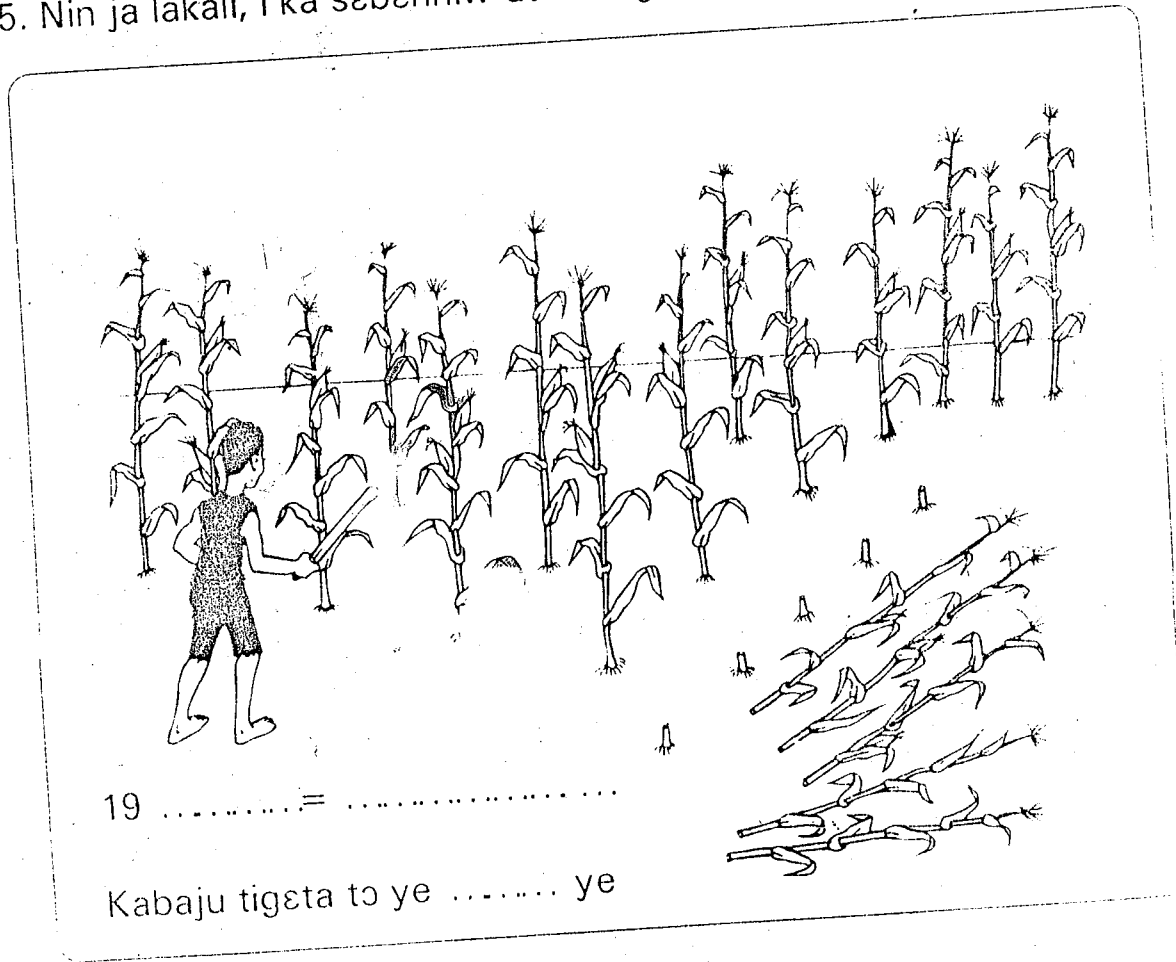
Misali dilenw jaabi be jini i n'a fo baara keta 1 ta kera cogo min .
- Takalagomi 9 tun be cenin do bolo. A ye 5 muga tafalagomi in na. Tagalagomi to ye joli ye ?

$$9 - 5 = \dots$$

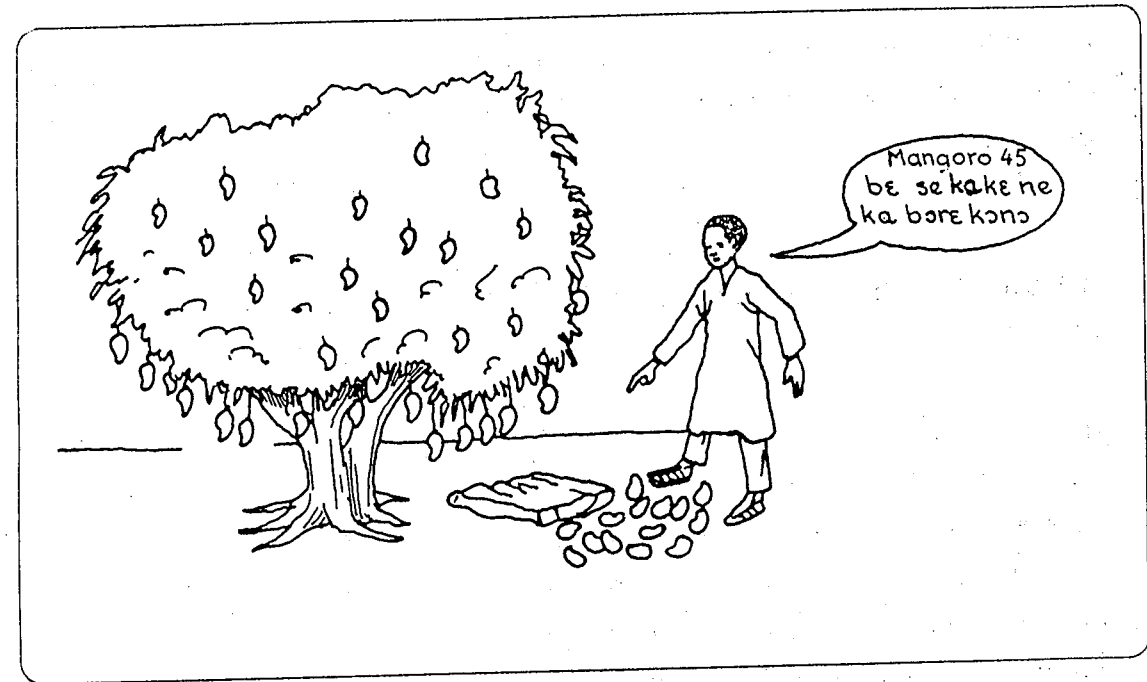
-Gafe 26 be kalanso alamɔri kɔrɔ. Karamɔgo ye 4 ta gafew la gafew to ye joli ye ?

Degeliw :

1. Seden 18 tun be Madu bolo 13 sara . A to ye joli ye ?
2. Fanta taara sugu la ni lenburukumunin 29 ye. A ye 16 feere. A to tora joli ye ?
3. Bahawa nana ni namasaden 52 ye. Denmisenw ye 41 dun. Namasaden joli tora a bolo ?
4. Karamɔgo ye farasu 45 bila tabali kan. A ye baara ke ni farasu 35 ye. Farasu joli tora tabali kan ?
5. Nin ja lakali, i ka sebenniw dafa duguma.



6 - Ja in lakali, i ka sebenniw dafa duguma.



..... + = 45
 walima 45 =
 mangoro karita to ye

Da 50

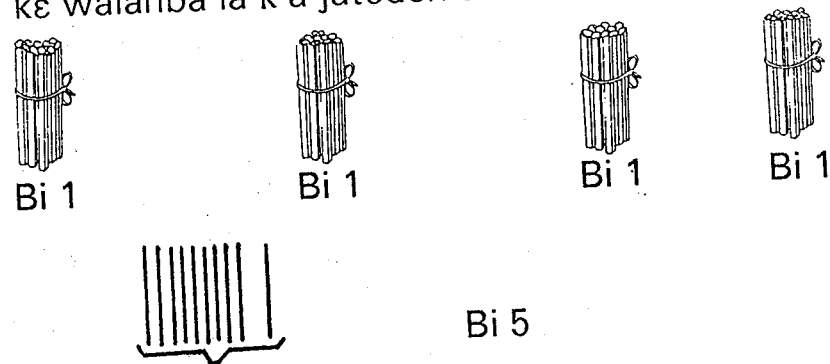
I. Kuntilemma : Kalansen laban na, kalanden ka kan ka se :
 - ka 50 soro, k'a kalan, k'a seben ni jatedenw ni signidenw ye.
 - ka 50 waraka.

II. Baarakeminenw : kalaninw, belekisew, furabuluw ani sigida fen werew.

III. Taasira :

Baara keta 1 :

- karamogo be kalanin 49 (bikalasiri 4 ni kalanin 9) mine a numanbolo la ka kalanin 1 mine a kininbolo la, k'olu jira kalandenw na. Kalanin 1 in be fara bikalasiri 4 ni kalanin 9 kan ka-kalandenw jininka o hake la (o be ben kalanin 50 ma walima bikalasiri 5).
 O tigma be ke walanba la k'a jateden seben a koro.



50 be seben katimu koro

Biw	Kelenw
5	0

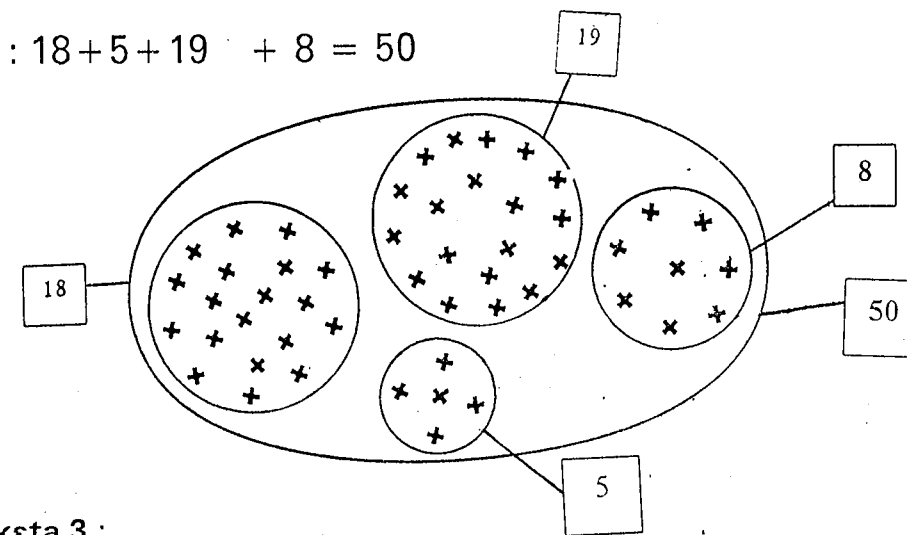
50 be seben ni signidenw ye walanba kan k'a kalan.
 Kalandenw be 50 seben ni jatedenw ni signidenw ye walanninw kan k'a kalan.

50
50
50
Bi duuru
Bi duuru
Bi duuru

Baara keta 2 :

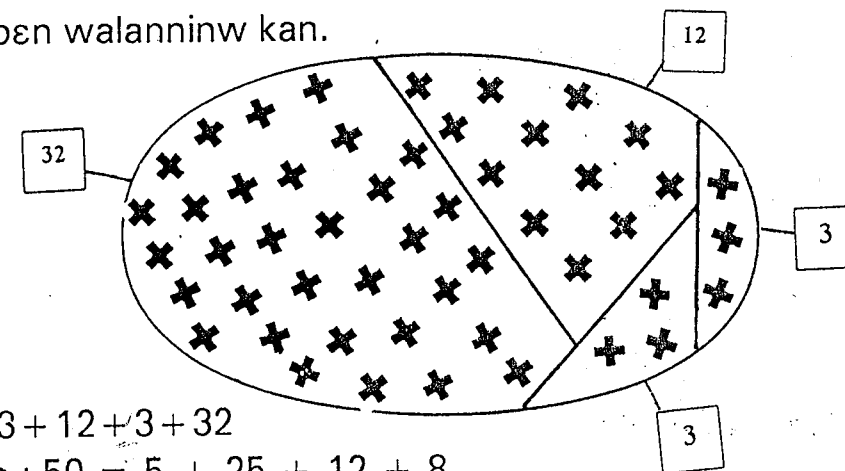
Kalandenw be 50 sorogoo daw waleya kuluw la ni kalaninw, belekisew, furabuluw walima sigida fen werew ye

Misali : $18 + 5 + 19 + 8 = 50$



Baara keta 3 :

Kalandenw be 50 warakali ke kuluw la n'u ka minenninw ye k'u seben walanninw kan.



$50 = 3 + 12 + 3 + 32$

Misala : $50 = 5 + 25 + 12 + 8$

Baara keta 4 :

Kalandenw be danni ke k'a ta 1 na ka t'a bila 50 la .
 Kalandenw be daw seben k'a ta 1 na ka t'a bila 50 la ni jatedenw ye.

Baara keta 5.

Kalandenw be daw seben ka bo 50 la ka ne... signidenw ye.

Degeliw :

1) Jatesigi minnu jaabi ye kelen ye, olu bolo di jagon ma.

15 + 4 8 + 8

13 + 3 10 + 6

22 + 6 2 + 19

20 + 10 15 + 15

18 + 3 10 + 9

2) Tije wa nkalon ?

	T	NK
47 < 20		
19 > 5		
50 < 25		

Seginkanni :

1. Jatesigi ninnu jaabi di :

27 - 5 ; 36 - 4 ; 49 - 6 ; 38 - 27 ; 50 - 20

2. Jatesigi ninnu jaabi di :

18	29	39	48	50
- 3	- 9	- 17	- 23	- 40

3. Jatepiniw jaabi :

- Birama ye mangaroden 45 kari, a ye mangoroden 22 di Dala ma. Birama ka mangoroden to ye joli ye ?

- Jenentugannin 48 be Madu bolo. A ye jenentugannin 36 feere . Madu ka jenentugannin to ye joli ye ?

- Dorome 50 be Fatu bolo. A ye dorome 20 di Sidi ma. Fatu ka wari to ye joli ye ?

kafoli marata be min na

I. **Kuntillenna** : kalansen laban na, kalanden ka kan ka se :
- ka kafoli ke marata be min na.

II. **Baarakeminɛnw** : kalandenw, gafew

III. **Taasira** :

Baara keta 1. Gafe 35 dira kalanso folo ma walanta don. Bi gafe 18 dira o kalanso kelen ma.

Gafe joli dira kalanso in ma ?

Kalandenw be nininka jatesigi keta la

Kalandenw be na gafew kafo jagon na k'u hake fo.

Karamogo b'o jatesigi jolen sebɛn walanba kan daw katimu kono nin cogo la

bi	Kelen
1	
3	5
+	
1	8
=	5 3

Kafoli be ke so ni so :

Kelenw ka so : 5 + 8 na o ye 13 ye
13 ye jateden 2 ye ; jateden 2 te sebɛn so kelen kono. O la 3 be sebɛn kelenw ka so, ka bi 1 mara.

Biw ka so : bi 1 maralen be kafo 3 la biw ka so. o ye 4 ye. 4 kafo 1 na, o ye 5 ye, 5 be sebɛn biw ka so 1 jukoro. ○○○○
O jatesigi file :

$$\begin{array}{r} 35 \\ + 18 \\ \hline = 53 \end{array}$$

Jatesigi be kalan



Jatesigi be kalan

Baara keta 2. Karamogo ni kalandenw be nin misaliw ke walanba ni walanninw kan

$$\begin{array}{r} 32 \\ + 18 \\ \hline = \end{array} \quad \begin{array}{r} 35 \\ + 9 \\ \hline = \end{array} \quad \begin{array}{r} 15 \\ + 7 \\ + 19 \\ \hline = \end{array}$$

$$\begin{array}{r} 12 \\ + 19 \\ \hline = \end{array} \quad \begin{array}{r} 11 \\ + 9 \\ + 8 \\ \hline = \end{array} \quad \begin{array}{r} 24 \\ + 11 \\ + 6 \\ \hline = \end{array} \quad \begin{array}{r} 28 \\ + 15 \\ \hline = \end{array}$$

Degeliw :

1. Nin jatesigiw ke

$25 + 6 =$

$19 + 19 =$

$18 + 12 + 16 =$

$35 + 15 =$

$24 + 26 =$

$14 + 8 + 24 =$

2. Nin jatesigiw ke :

$$\begin{array}{r} 13 \\ + 8 \\ \hline = \end{array} \quad \begin{array}{r} 14 \\ + 16 \\ + 20 \\ \hline = \end{array} \quad \begin{array}{r} 39 \\ + 7 \\ \hline = \end{array} \quad \begin{array}{r} 7 \\ + 35 \\ \hline = \end{array} \quad \begin{array}{r} 33 \\ + 17 \\ \hline = \end{array}$$

3. Bikise 18 be Ali bolo. A fa ye 17 di a ma. Bikise joli be Ali bolo ?

4. Cemannin 7 ani musomannin 14 be Seku ka du kono. Denmisennin joli be Seku ka du kono ?

Daw k'a ta 50 la ka t'a bila 59 na

i. **Kuntilemma** : Kalansen laban na, kalanden ka kan ka se : ka daw soro, k'u kalan, k'u seben ni jatedenw ni signidenw ye k'a ta 50 la ka t'a bila 59 na.

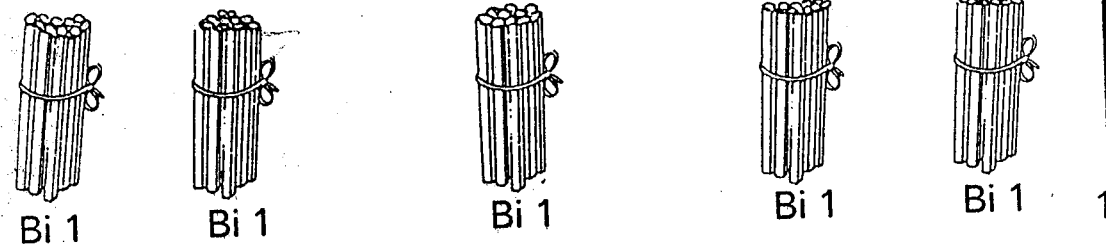
ii. **Baarakeminɛnw** : kalaninw, belɛkisɛw, furabuluw ani sigida fen wɛɛw.

iii. Taasira

Baara keta 1

Kalandenw be kalanin 50 dan (bi kalasiri 5) ka kalanin 1 fara a kan k'o hake fo.

- O tigin a be ke walanba kan k'a jateden seben a koro.



Bi 5 ni 1

Bi	Ke
5	1

- 51 be seben ni signidenw ye walanba kan k'a kalan (bi duuru ni kelen)
 - Kalandenw be da 51 seben ni jatedenw ni signidenw ye walanninw kan k'a kalan.

51
Bi duuru ni kelen

51
Bi duuru ni kelen

Baara keta 2 :

- Kalandenw be 51 soroogo daw waleya kuluw la ni kalaninw, belɛkisɛw, furabuluw walima sigida fen wɛɛw ye

Misali :

$$10 + 25 + 13 + 3 = 51$$

Baara keta 3

Kalandenw be 51 warakali ke n'u ka minenninw ye k'u seben walanninw kan.

Misali :

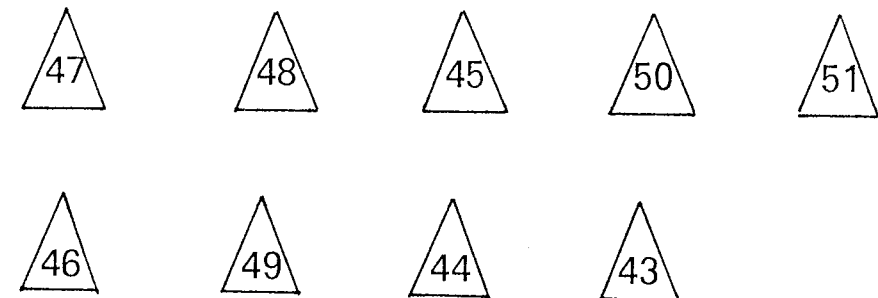
$$51 = 9 + 18 + 10 + 7 + 5 + 2$$

Janto : Nin taasira kelen in be ke ni da tow ye k'a ta 51 na ka t'a bila 59 na.

Baara keta 4 : Daw be sanga jagon ma.

Degeliw

1. Keresabaw bolo di jagon ma k'a ta da dogomannin na ka taa a bila caman na.

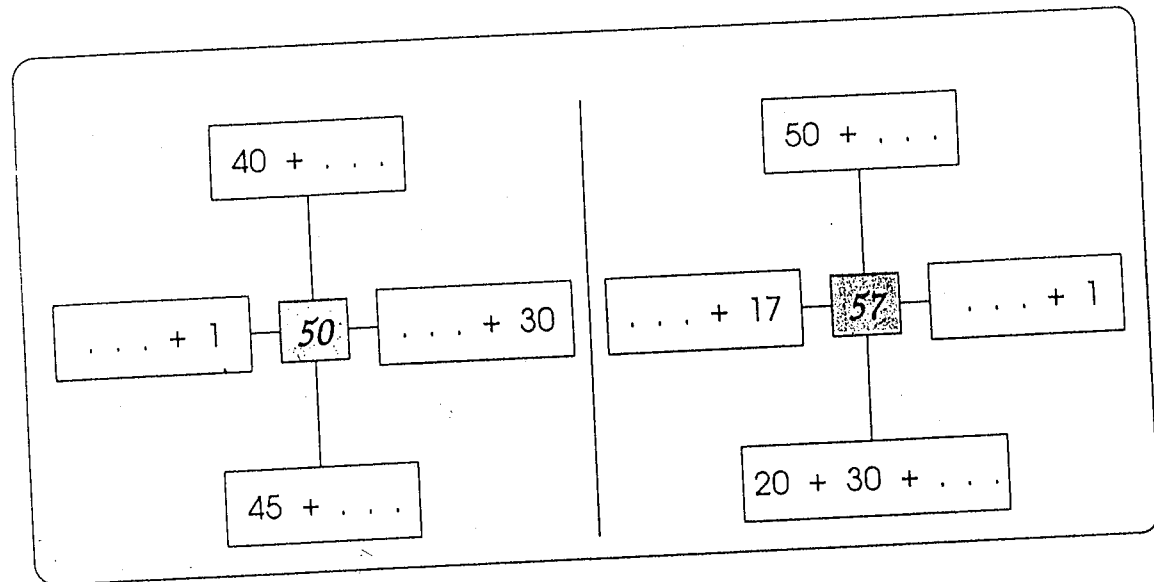


2. Taamasiyen numan bila daw ni jagon ce.

50...50 39...37 23...40 45...25

18...10 12...32 27...27 7.....7

3. Tangiliniw konosebenniwa dafa, ka kareninw konodaw saro.



Doboli : marata be min na

I. **Kuntilenna** : Kalansen laban na kalanden ka kan ka se :
- ka doboli ke marata be min na.

II. **Baarakeminew** : kalaninw, walanninw, ani fen werew.

III. **Taasira** :

Baara keta 1. Farasu 32 tun be karamogo bolo, a ye farasu 7 di kalandenw ma . A to ye joli a bolo ?

Jatesigi be seben walanba kan k'a kecogo jefo : $32 - 7 =$

bi	Ke
3	(1) 2
-	
(1)	7
2	5

Kelenw ka so : 7 bolen 2 la o ye joli ye ?

7 te se ka bo fila la, bi 1 be kafo 2 la kelenw ka so, o ye 12 ye. 7 bolen 12 la o to ye 5 ye. 5 be seben kelenw ka so 7 jukoro, ka bi dononen mara.

Bi 1 maralen be na kafo bi botaw la duguma.

Biw ka so : 1 maralen kafo 0 la o ye 1 ye. 1 bolen 3 la o to ye 2 ye. 2 be seben biw ka so 1 jukoro.

Jaabi : 32

- 7

= 25



Baara keta 2 : Misi 55 tun be Zan bolo. A ye misi 18 feere.
 Zan ka misi to ye joli ye ?
 Jatesigi be seben walanba kan k'a kecogo neƙo : $55 - 18 =$

bi	Ke
5	(1)5
- 1	8
(1)	
= 3	7

Kelenw ka so : 8 bolen 5 la o ye joli ye ?

8 te se ka bo 5 la. bi 1 be singa k'o kafo 5 la, o be ke 15 ye. 8 bolen 15 la o to ye 7 ye. 7 be seben 8 jukoro kelenw ka so, bi 1 dononen be mara.

Biw ka so : bi 1 maralen be kafo 1 na o ye 2 ye. 2 bolen 5 la, o to ye 3 ye. 3 be seben 1 jukoro biw ka so.

$$\begin{array}{r} \text{Jaabi : } 55 \\ - 18 \\ \hline = 37 \end{array}$$

Degeliw :

1. Jatesigiw jaabi pini.

$$37 - 29 = \quad ; 43 - 27 = \quad ; 52 - 36 = \quad ; 33 - 7 = \quad ; 58 - 8 = \quad$$

$$26 - 9 = \quad ; 54 - 18 = \quad ; 27 - 19 = \quad ; 51 - 48 = \quad ; 56 - 17 = \quad$$

2. Jatesigiw jaabi pini.

54	42	28	50	44	17	58	31
- 36	- 27	- 9	- 16	- 27	- 9	- 19	- 25
_____	_____	_____	_____	_____	_____	_____	_____
=	=	=	=	=	=	=	=

3. Jatepiniw

a) Dala taara sugu la ni dorome 50 ye. A ye tamati 35 la san. Dala ni dorome joli seginna ?

b) Kalanden 58 tun be kalanso do kono. Kalanden 39 taara sanfokalanso la. Kalanden joli tora u no na ?

c) Bikise 48 tun be Alu bolo. Lafijebowaati la 25 tununa. Joli tor'a bolo ?

d) Misi 43 be Hamadi bolo .16 sogora bagandogotoro fe.

Misi sogobali ye joli ye ?

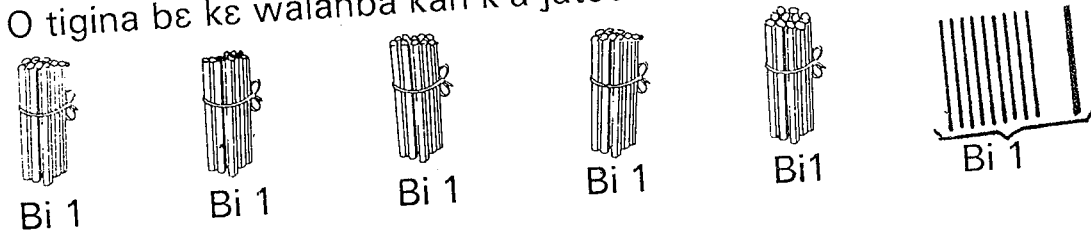
Da 60

I. Kuntilenna : Kalansen laban na, kalanden ka kan ka se :
 - Ka 60 saro, k'a kalan, k'a sɛben ni jatedenw ni siginidenw ye.
 - Ka 60 waraka.

II. Baarakeminɛnw : Kalaninw, belɛkisɛw, furabuluw ani sigida fɛn wɛrɛw.

III. Taasira :

Baara kɛta 1 :
 Kalandenw bɛ kalanin 59 (bikalasiri 5 ni kalanin 9) dan ka kalanin 1 fara o kan k'a hake fa. (o bɛ bɛn kalanin 60 ma walima bikalasiri 6).
 O tigina bɛ kɛ walanba kan k'a jateden sɛben a koro



- 60 bɛ sɛben daw katimu koro

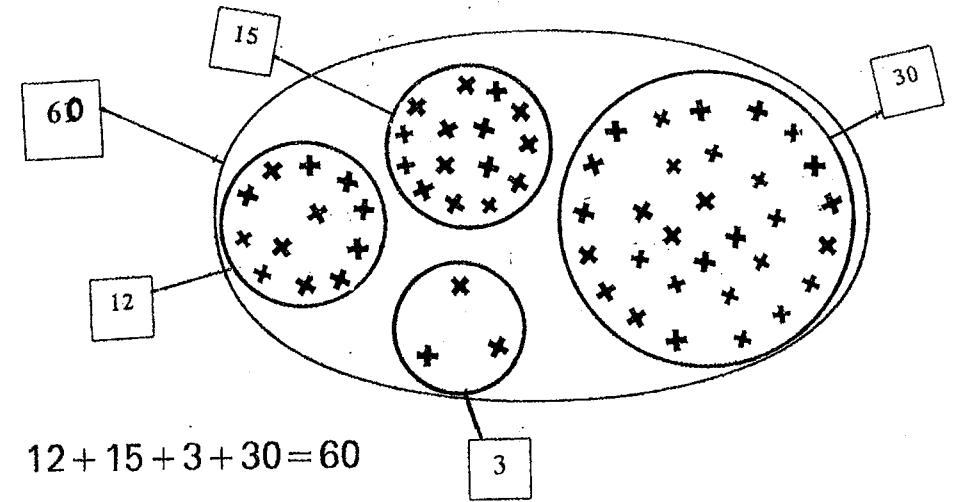
bi	Ke
6	0

- 60 bɛ sɛben ni siginidenw ye walanba la k'a kalan.
 - Kalandenw bɛ 60 sɛben ni jatedenw ni siginidenw ye walanninw kan k'a kalan :

60 60 60
 Bi woro Bi woro Bi woro.....

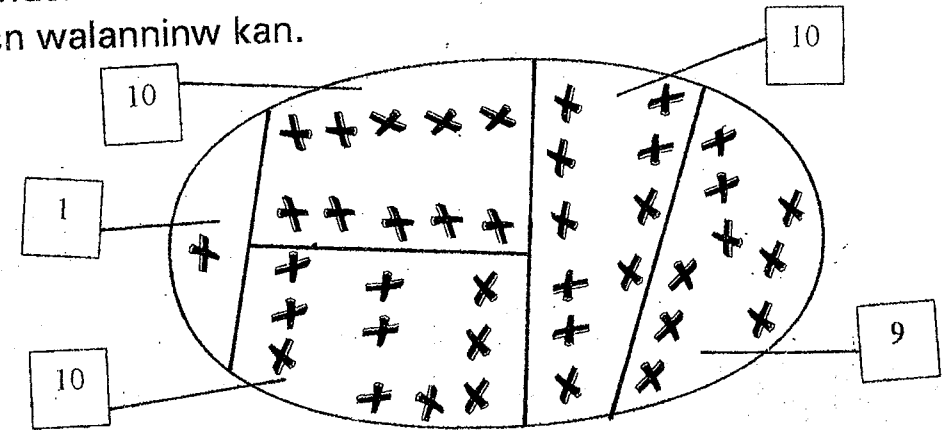
Baara kɛta 2 :

- Kalandenw bɛ 60 sarɔcogo dow waleya kuluw la ni kalaninw, belɛkisɛw, furabuluw walima sigida fɛn wɛrɛw ye.



Baara kɛta 3 :

Kalandenw bɛ 60 warakali dow kɛ n'u ka minenninw ye k'u, sɛben walanninw kan.



$60 = 10 + 10 + 10 + 10 + 9 + 1$

Degeliw

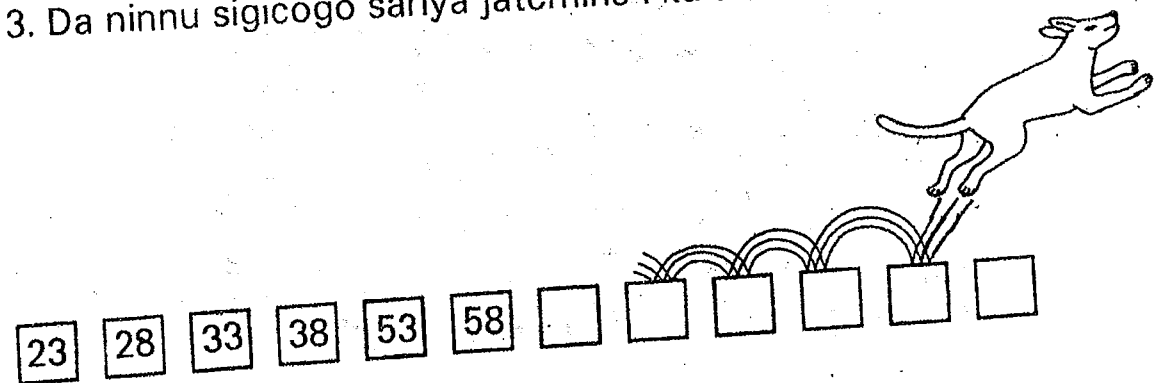
1. Taamasiyen puman bila daw ni pagon cɛ :

43 ...42 18 ...50 21 ...16 30 ...30
 39 ...39 10 ...0 1 ...1 57 ...47

2. Da minnu ye kelen ye, olu bolo di jigon ma ni kalaninw ye.

bi duuru ni fila	60
bi naani ni saba	38
bi woro	25
mugan ni duuru	50
bi saba ni seegin	40

3. Da ninu sigicogo sariya jatemine i ka tow seben



- Hake joli be u ni jigon ce?

kafoli marata be min na walima marata te min na

I. Kuntillenna : kalansen laban na, kalanden ka kan ka se :

- ka kafoli ke marata be min na
- ka kafoli ke marata te min na.

II. Baarakeminanw: kalandenw, gafew, walanninw.

III. Taasira :

Baara keta 1. Nin jatejini be seben walanba kan karamogo fe : Ali ye mangoroden 32 kari, a dogomuso ye 7 tomo ka d'a ma.

Mangoro joli be Ali bolo ?

Karamogo ni kalandenw be je ka jatejini jaabi jini jigon fe, k'a seben walanba kan nin cogo la :

Jefoli	Sorolen	Jatesigi
Ali ka mangoro hake ye :		32
32 + 7	= 39	+ 7
		<hr/>
		= 39

Baara keta 2 :

Nin jatejini be seben walanba kan karamogo fe : Madu ka jigosu don folo, a ye jaboro 33 soro, a don filanan, a ye 19 soro. Madu ye jaboro joli soro.?

Jatejini in be waleya kulubaara senfe.

Degeliw :

1. Nin jatesigiw ke

37	48	50	45
+ 8	+ 11	+ 15	+ 10
<hr/>	<hr/>	<hr/>	<hr/>
=	=	=	6

2. Cɛmannin 35 ani musomannin 25 bɛ kalanso foɔ koɔ.
Kalanden joli bɛ kalanso in koɔ ?

3. Umaru ka bitiki koɔ, a ye sukaro pake 22 feere
soɔmada fe, ka 35 feere wulada fe. Umaru ye sukaro
pake joli feere tile koɔ ?

Janto : Kafoli, marata bɛ min na, o misali do bɛ sɛbɛn, a n'a
kɛcogo, k'o dulon kalanso koɔ.

Daw k'a ta 60 la ka t'a bila 69 na.

I Kuntileɛna : kalansen in laban na, kalanden ka kan ka se :
- ka daw soɔ, k'u kalan, k'u sɛbɛn ni jatedenw ni siginidenw
ye k'a ta 60 la ka t'a bila 69 na.
- k'u waraka
- k'u sanga joɔɔn ma.

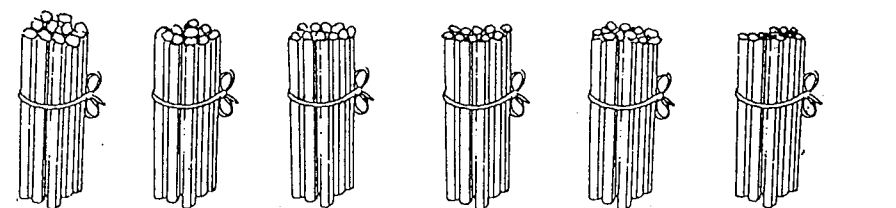
II. Baarakeminɛnw

Bikalasiriw, belekisew ani fen werɛw

III. Taasira

Baara kɛta 1 :

Karamoɔ b'a jini kalandenw fe u ka 60 dan, n'o bɛ bɛn
bikalasiri woɔɔ ma. Kala kelen bɛ kafo o la .U b'o dan k'o
hake fo. Da soɔɔɔn bɛ sɛbɛn ni siginidenw ni jatedenw ye
walamba kan, a bɛ kalan k'a sɛbɛn walanninw kan ni
siginidenw ni jatedenw ye.



61

Bi woɔɔ ni kelen

61

Bi woɔɔɔ ni kelen

61 soɔɔɔa cogo min, da toɔw bɛ soɔɔ o cogo kelen na fo ka se
69 ma.

Misali :

$$60 + 1 = 61$$

$$60 + 2 = 61 + 1 = 62$$

$$60 + 3 = 62 + 1 = 63$$

$$60 + 4 = 63 + 1 = 64$$

$$60 + 5 = 64 + 1 = 65$$

$$60 + 6 = 65 + 1 = 66$$

$$60 + 7 = 66 + 1 = 67$$

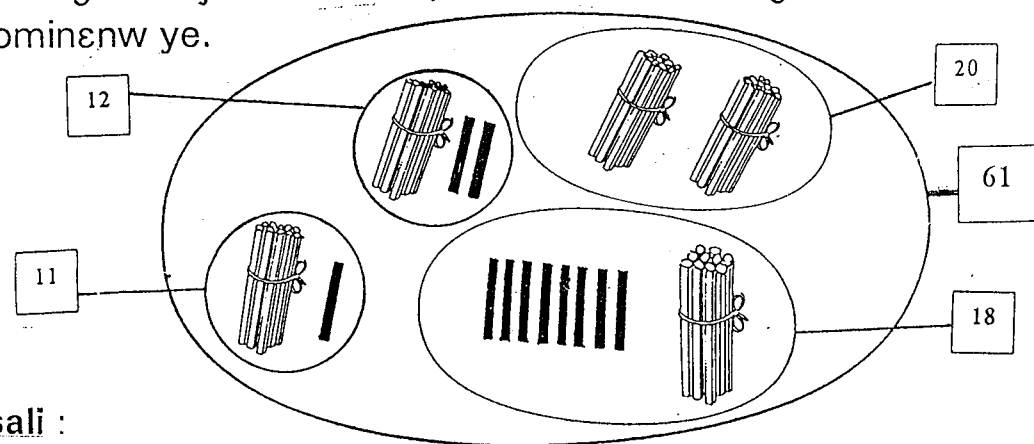
$$60 + 8 = 67 + 1 = 68$$

$$60 + 9 = 68 + 1 = 69$$

Da sɔrɔlenw bɛɛ bɛ sɛbɛn katimu kɔnɔ.

Baara keta 2 :

Karamɔgo b'a jini kuluw fɛ, bɛɛ ka 61 sɔrɔcogo dɔ ke holominɛnw ye.



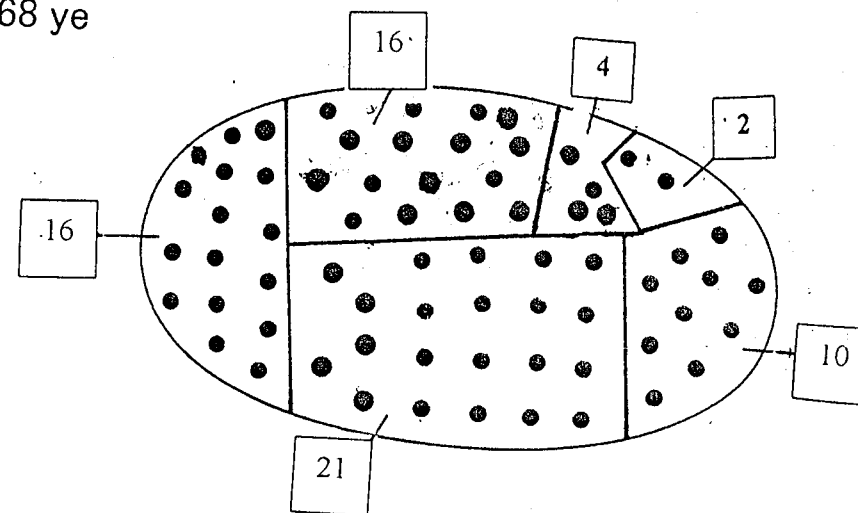
Misali :

Da tɔw fana sɔrɔcogo bɛ ke nin cogo la k'a ta 61 na ka taa se 69 ma.

Baara keta 3 :

Daw kelen-kelen bɛ di kulu bɛɛ ma u k'o warakali dɔw kɛ.

Misali : 68 ye



$$68 = 10 + 21 + 2 + 16 + 15 + 4$$

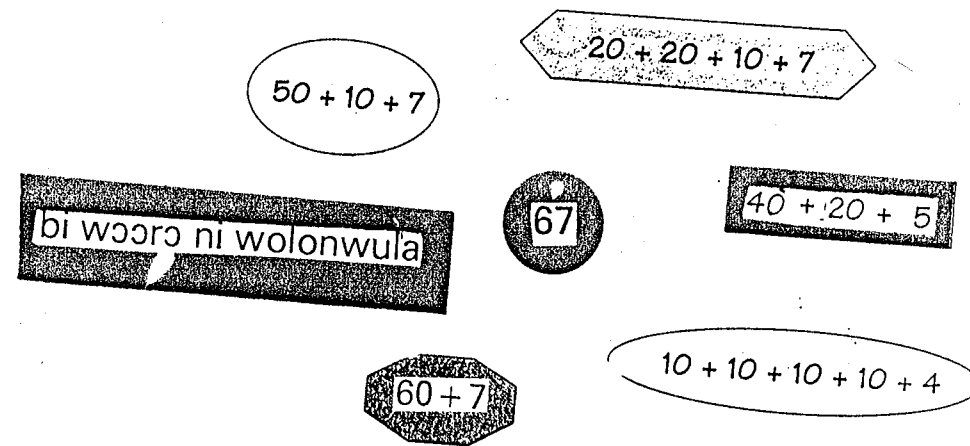
Da tɔw fana bɛ se ka waraka nin cogo in na k'a ta 61 na ka t'a se 69 ma.

Baara keta 4 :

Daw bɛ sanga jɔgɔn ma .

Baara keta 5 :

Sɛbɛnniw bolo di jɔgɔn ma, minnu kɔnɔ mumɛw ka kan.



Degeliw :

1. Daw seɓen ka bo 60 la ka t'a bila 69 na
2. Daw seɓen ka bo 69 na ka na 60 la.
3. Da ninnu seɓen k'a ta dogomannin na ka taa caman na.
58, 12, 0, 31, 63, 69, 24, 8, 47
4. Da ninnu seɓen ka bo caman na ka na dogomannin na.
5, 56, 34, 3, 66, 9, 42, 38, 1, 25

5. Da nininenw sigi tomiw no na

a) $65 = \dots + 35 + \dots + 10$

b) $\dots + 23 + \dots + 15 + \dots = 69$

6. Caya walima dogoya taamasiyen ke nin daw ni jogon ce

$67 \dots 52$; $46 \dots 19$; $60 \dots 0$; $5 \dots 38$; $23 \dots 63$

Doboli ; marata be min na walima marata te min na

I.Kuntilenna : kalansen laban na, kalanden ka kan ka se :

- ka doɓoli ke marata te min na
- ka doɓoli ke marata be min na

II.Baarakeminenw : walanba, walannin, farasu ani fen werew

III.Taasira :

Baara keta 1.

Marata te min na : jatesigi duuru jogonna be seɓen walanba kan. Kalandenw b'u seɓen walanninw kan k'u jaabi.

Misali :

$18 - 5 =$; $35 - 23 =$; $47 - 38 =$; $69 - 69 =$; $69 - 47 =$

Baara keta 2.

Saga 29 tun be Madu bolo. A ye saga 17 feere. Madu ka saga to ye joli ye sisan ?

Jatepini be seɓen walanba kan. Kalandenw b'a seɓen k'a jaabi

soro.

Baara keta 3.

Marata be min na :

Jatesigi duuru jogonna be seɓen walanba kan. Kalandenw b'u seɓen walanninw kan k'u jaabi.

Misali

$31 - 15 =$; $43 - 25 =$; $56 - 18 =$; $60 - 15 =$; $63 - 58 =$

Baara keta 4.

Seden 41 tun be Sedu ka sesulu kono. Bana ye 28 faga u la. Sedu ka sedenw to tora joli ye sesulu kono ?

Jatesigi be seɓen walanba kan. Karamogo be jefoli ke, o ko kalandenw be jatepini in jaabi ke walanninw kan.

Degeliw :

1. Nin jatesigiw sɛben k'u jaabi :
 $16 - 13 =$; $57 - 28 =$; $31 - 8 =$; $49 - 37 =$; $51 - 48 =$
 $69 - 47 =$; $61 - 45 =$; $68 - 39 =$; $69 - 47 =$

2. Jatepiniw

- a) Dɔrɔmɛ 65 tun bɛ Ali kun. A ye kulusinɛn dɔ san dɔrɔmɛ 54. Ali ka wari tɔ tora joli ye ?
 b) Jɔbɔrɛ 68 tun bɛ mangasan kɔnɔ. Dugumɔgɔw ye 49 san. Jɔbɔrɛ joli bɛ mangasan kɔnɔ sisan ?

Da 70

I .Kuntilemma : kalansen in laban na kalanden ka kan ka se :
 - Ka da 70 sɔrɔ k'a kalan, k'a sɛben ni jatedenw ni siginidenw ye.
 - K'a waraka.

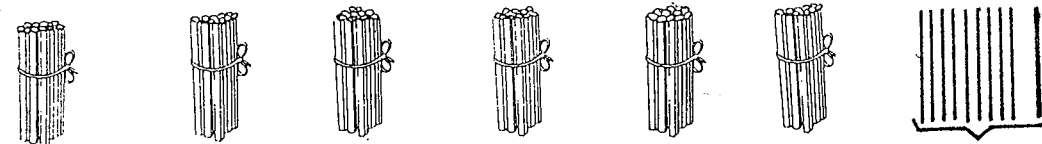
II. Baarakeminɛnw :
 Bikalasiriw, bɛlekisɛw ani fɛn wɛrɛw.

III. Taasira

Baara kɛta 1 :

Kalandenw bɛ kalanin 69 dan, n'o bɛ bɛn bikalasiri wɔrɔrɔ ani kala kɔnɔntɔn ma.

Kala kɛlɛn bɛ kafo o la. U b'o dan, k'o hake fo.



Bi	Ke
7	0

Bi 7

Da sɔrolɛn in bɛ sɛben walanba kan. A bɛ kalan k'a sɛben walanninw kan ni jatedenw ni siginidenw ye. .

70
Bi wolonwula

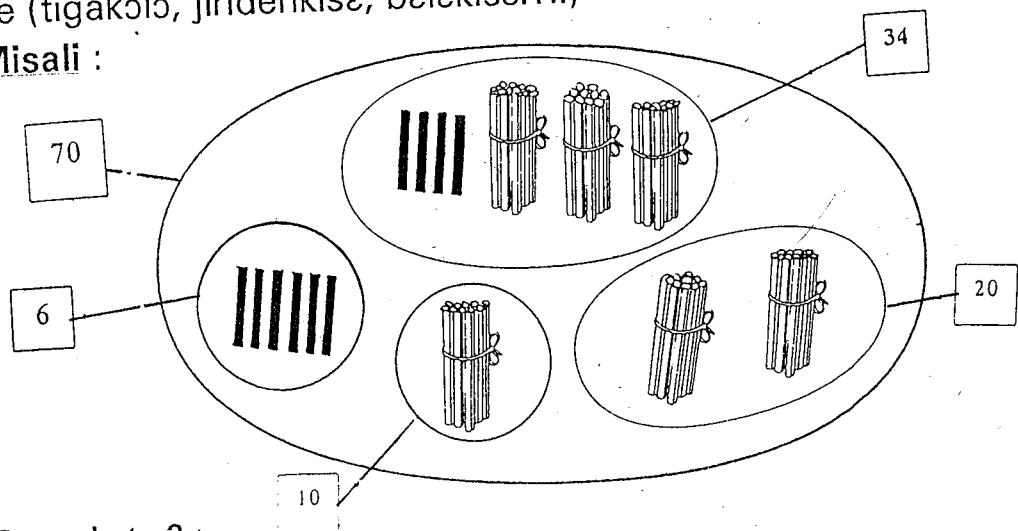
70
Bi wolonwula

70
Bi wolonwula

Baara keta 2 :

Kulu kelenkelenna bæe bæ 70 saracogo do ke n'a bolomimenw ye (tigakolo, jiridenkise, belakise....)

Misali :



Baara keta 3 :

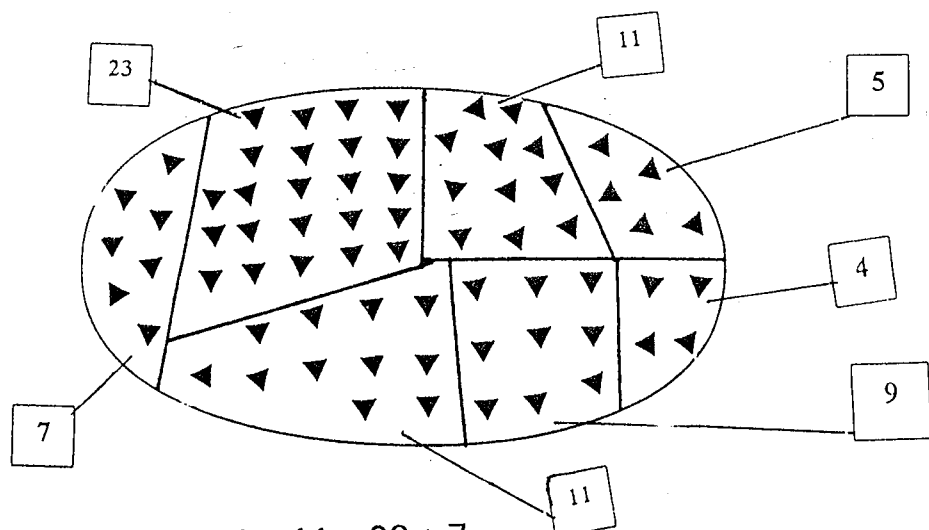
Kulu kelenkelenna bæe bæ 70 warakacogo do ke.

Misali : $70 = 60 + 10$

$70 = 50 + 10 + 10$

$70 = 25 + 42 + 2 + 1$

$70 = 10 + 10 + 10 + 10 + 10 + 10 + 10$



$70 = 5 + 4 + 5 + 11 + 11 + 23 + 7$

Degeliw :

1. Daw seben fila -filadanni na k'a ta 60 la ka taa bila 70 la.
2. Daw seben duuru - duuru danni na ka bo 0 la ka taa 70 la
3. Daw seben tan-tandanni na ka bo 70 la ka na 0 la.
4. Da ninnu sigi jogon ko ka bo dogomannin na ka taa caman na.

52, 3, 27, 69, 13, 45, 0, 70

5. Da do seben tomiw no na ka ben taamasiyen ma.

$54 < \dots\dots\dots$

$\dots\dots\dots > 35$

$\dots\dots\dots = 60$

$70 > \dots\dots\dots$

$0 < \dots\dots\dots$

6. Da ninnu seben katimu kono.

70, 21, 9, 63, 37, 46, 2

Seginkanni :

1. Jatesigiw jaabiw jini

- $50 + 19 = \dots ; 57 - 25 = \dots$
- $13 + 24 + 31 = \dots ; 69 - 6 = \dots$
- $52 + 8 = \dots ; 70 - 15 = \dots$
- $19 + 34 = \dots ; 58 - 9 = \dots$

2. Jatesigiw jaabiw jini

$$\begin{array}{r} 52 \\ + 16 \\ \hline \end{array} \quad \begin{array}{r} 70 \\ - 20 \\ \hline \end{array} \quad \begin{array}{r} 45 \\ + 8 \\ \hline \end{array} \quad \begin{array}{r} 62 \\ - 16 \\ \hline \end{array}$$

$$\begin{array}{r} 26 \\ + 17 \\ + 3 \\ \hline \end{array} \quad \begin{array}{r} 63 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 45 \\ + 13 \\ \hline \end{array} \quad \begin{array}{r} 57 \\ - 27 \\ \hline \end{array}$$

3. Jatejiniw :

- Isa ni Madu taara ntonmine na. Isa ye nton 30 mine. Denmisenw ye nton joli mine ?
- Dorome 35 tun be Fako bolo. Sata ye dorome 17 di a ma. Fako ka wari ye joli ye sisan ?
- Taji litiri 70 tun be Dirisa bolo. A ye litiri 40 feere. Taji to ye litiri joli ye ?
- Dugu in magow tun ye jiri 66 turu. Jiri 8 sara. Jiri balolenw ye joli ye ?

kafoli ni dɔbɔli jatejini kɔnɔ

I. kuntilenna : kalansen laban na, kalanden ka kan ka se - ka jatejiniw ke kafoli ni dɔbɔli be min na.

II. Baarakeminɛnw : walanninw, farasu

III. Taasira :

Baara keta 1. jatejini in be seben walanba kan, karamogo fe. Kaja taara sugu la. A ye sefan 45 san Sedu fe ka 22 san Sidi fe. Kaja ye sefan joli san ?
A nanen so, a denw ye sefan kuru 15 jiran k'o dun. Sefan to tora joli ye ?
Karamogoni kalandenw be je ka jatejini jaabi jini jagon fe k'o seben walanba kan.

Jefoli	Sɔrolen	Jatesigi	
Kaja ka sefan sannan ye :		45	67
45 + 22 =	67	+ 22	- 15
Sefan to ye :			
67 - 15 =	52	= 67	= 52

Baara keta 2.

Madu ye baara juman ke kalanso kɔnɔ. Karamogo ye dorome.30 di a ma, karamogokoroba ye .40 d'a ma. A taato so, a ye dorome.10 di a dogonin ma.
1) Madu ye dorome joli soro ?
2) Joli tora a bolo ?
jatejini be waleya kulubaara senfe.

Degeliw :

1. Nin jatesigiw ke

$20 + 18 =$	$55 + 15 =$
$33 - 1 =$	$60 - 20 =$
$65 - 48 =$	$40 - 11 =$
$36 - 13 =$	$65 - 49 =$

2. Jatepini : Penda ye tigatulu litiri 70 san. A ye litiri 20 feere sogoma, ka 15 feere wula fe.

- 1) Tigatulu litiri joli feerela ?
- 2) Tigatulu litiri to ye joli ye ?

3. Nin katimu in dafa :

	kalanso folo	kalanso filanan	kalanso sabanana	mumɛ
Cemannin	13	....	12	....
musomannin	....	11	11	....
mumɛ	26	21	....	70

Daw k'a ta 70 la ka taa bila 79 na

I. **Kuntilenna** : kalansen laban na, kalanden ka kan ka se :

- ka daw soro, k'u kalan, k'u seben k'a ta 70 la ka t'a bila 79 na ni jatedenw ni signidenw ye.
- K'u waraka.
- K'u sanga jagon ma.

II. **Baarakeminɛnw** :

Bikalasiriw, belekisew ani fen werew.

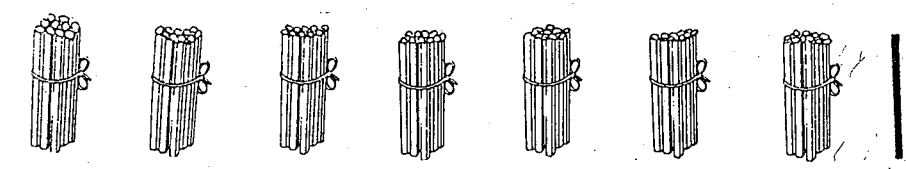
III. **Taasira** :

Baara keta 1.

Kalandenw be kalanin 70 dan, n'o be ben bikalasiri 7 ma.

Kalanin kelen be kafo o la u b'o dan k'o hake fo.

Da sorolen tigina be ke ka soro k'a don katimu kono :



Bi	Ke
7	1

Da sorolen be seben ni jatedenw ni signidenw ye walanba kan. A be kalan, k'a seben walanninw kan ni jatedenw ni signidenw ye.

71

71

Bi wolonwula ni kelen

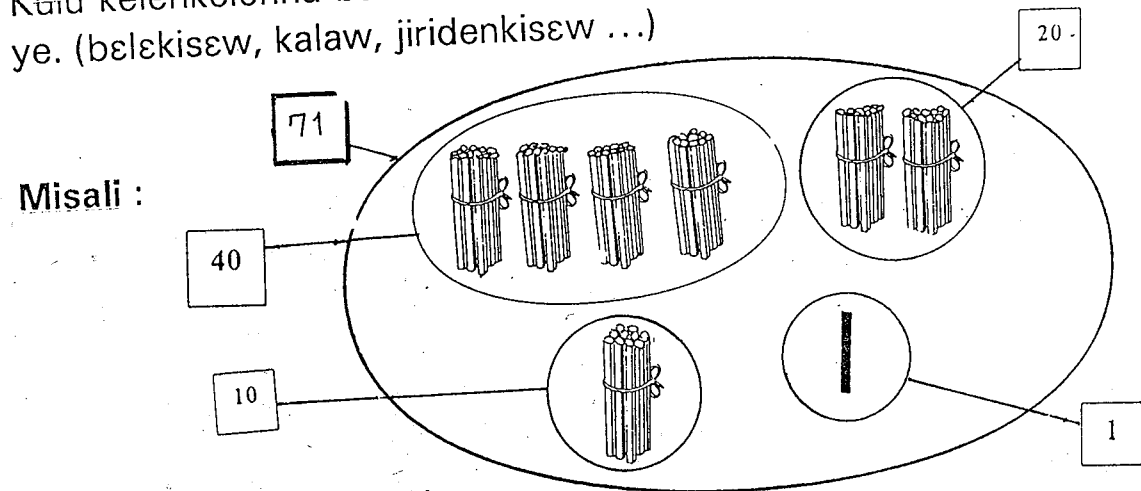
Bi wolonwula ni kelen

71 sorola cogo min, da tow soroli be ke o cogo kelen na fo ka se 79 ma.

Misali : $70 + 1 = 71$
 $70 + 2 = 72$
 $70 + 3 = 73$
 $70 + 9 = 79$

Da sɔrɔlenw bɛɛ bɛ sɛbɛn katimu kɔnɔ.

Baara keta 2 :
 Kɛlu kelenkelenna bɛɛ bɛ 71 sɔrɔcogo dɔ kɛ n'a bolominɛnw ye. (bɛlɛkisɛw, kalaw, jiridenkisɛw ...)

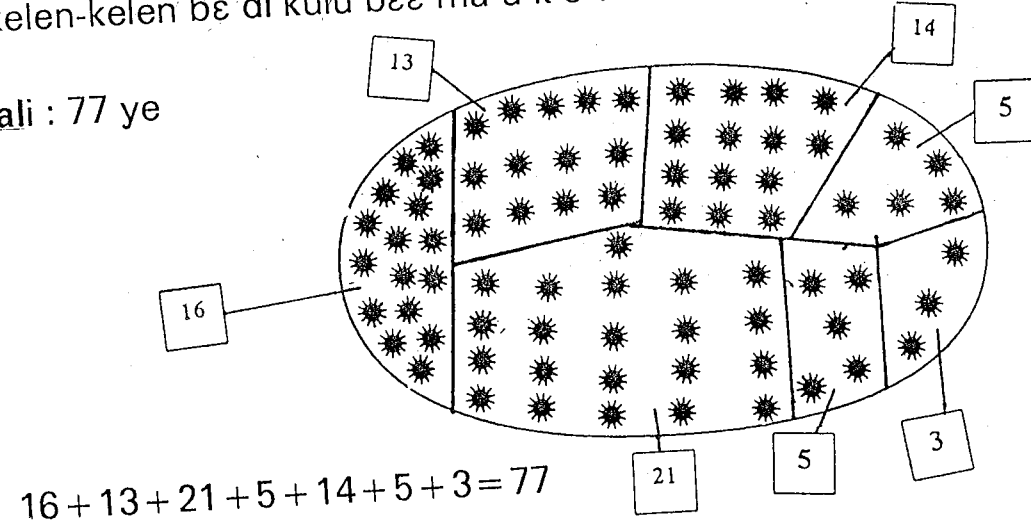


$40 + 20 + 10 + 1 = 71$

Da kelenkelenna sɔrɔcogo bɛ waleya nin cogo in na.

Baara keta 3 :
 Da kelen-kelen bɛ di kɛlu bɛɛ ma u k'o warakali dɔw kɛ.

Misali : 77 ye



$16 + 13 + 21 + 5 + 14 + 5 + 3 = 77$

71 ni 77 warakara cogo min, da tɔw bɛ warakara o cogo kelen na k'a ta 71 na ka t'a bila 79 na.

Misali : $72 = 54 + 18$
 $73 = 46 + 15 + 12$
 $76 = 32 + 28 + 10 + 6$
 $78 = 10 + 10 + 10 + 10 + 10 + 10 + 10 + 8$
 $79 = 50 + 20 + 9$

Baara keta 4 :

- Daw bɛ sanga jɔgɔn ma

Degeliw :

1. Taamasiyɛnw lajɛ i ka daw sigi tomiw nɔ na.

$10 < \dots, 75 = \dots, 77 > \dots, 72 < \dots$

2. Da ninnu waraka.

$79, 55, 66, 70, 63.$

3. A dafa

$70 + 5 = \dots\dots\dots$

$\dots + 9 = 69$

$73 + \dots = 73$

$68 = \dots + 44$

$51 + 8 + 13 = \dots\dots\dots$

4. A dafa

Bi 7 ni 4, 0 ye

Bi 7 ni 9, 0 ye.....

71 sigi katimu kono

Bi	Ke

bi 7, 0 ye.....

5. Da ninu sɛben jɔgon ko k'a ta caman na ka t'a bila dogomannin na.

1 - 55 - 79 - 60 - 43 - 18 - 77 - 2 - 70 - 33

6. Katimu dafa :

ɓɛɛ	Cɛmance	Kɔɛ
70	71	72
...	78	...
...	69	70
...	75	...
73	...	75
...	...	78

Kafoli ni dɔboli, tɛmɛ tɛ kɛ 79 kan

I. Nin jatesigiw jaabi nini

$$\begin{array}{r} 51 \\ + 15 \\ \hline = \end{array} \quad \begin{array}{r} 22 \\ - 19 \\ \hline = \end{array} \quad \begin{array}{r} 29 \\ + 10 \\ \hline = \end{array} \quad \begin{array}{r} 67 \\ - 16 \\ \hline = \end{array} \quad \begin{array}{r} 62 \\ + 17 \\ \hline = \end{array} \quad \begin{array}{r} 64 \\ - 28 \\ \hline = \end{array} \quad \begin{array}{r} 40 \\ + 30 \\ \hline = \end{array}$$

$$\begin{array}{r} 28 \\ + 39 \\ \hline = \end{array} \quad \begin{array}{r} 53 \\ - 36 \\ \hline = \end{array} \quad \begin{array}{r} 27 \\ + 38 \\ \hline = \end{array} \quad \begin{array}{r} 69 \\ - 48 \\ \hline = \end{array} \quad \begin{array}{r} 24 \\ + 10 \\ + 39 \\ \hline = \end{array} \quad \begin{array}{r} 56 \\ 23 \\ \hline = \end{array}$$

II. Jateɓiniw :

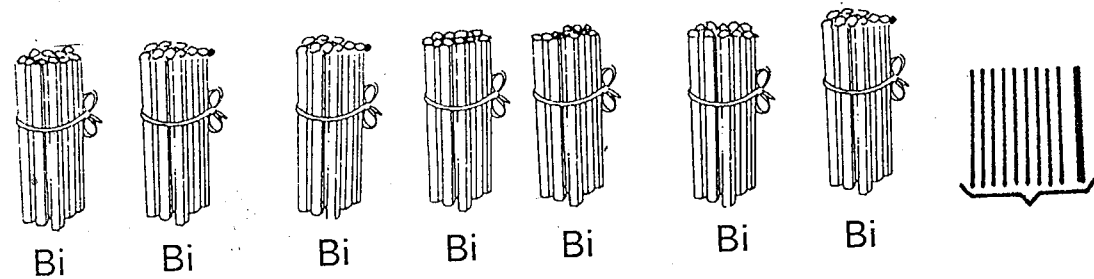
- Misi 79 tun bɛ fulakɛ bolo. A ye misi 60 feere. Fulakɛ ka misi to tora joli ye ?
- Karamogokoroba ye walannin 35 di kalanso folo la, ka 36 di kalanso filanan na. Karamogo ye walannin joli di kalandenw ma ?
- Ada taara ni dɔromɛ 60 ye sugu la. A ye dɔromɛ 25 don jaba la, ka 16 don kogo ni sunbala la, ka 6 don foronto la.
 - Ada ka musaka benna joli ma ?
 - A ka wari to ye joli ye ?
- Kaja ye akara d.17 la san, ka furufuru dɔromɛ 18 na san ani woso dɔromɛ 9 na. A ye dɔromɛ 50 di feerelikɛla ma.
 - Kaja ka musaka benna joli ma ?
 - Joli ka kan ka segin Kaja ma ?

Da 80

I. Kuntilenna : Kalansen in laban na, kalanden ka kan ka se :
 - ka 80 sara, k'a kalan, k'a saben ni jatedenw ni siginidenw ye.
 - K'a waraka.

II. Baarakeminanw :
 Bikalasiriw, belkisew ani fen werew.

III. Taasira :
Baara keta 1 :
 - kalandenw be 79 dan, n'o be ben bikalasiri 7 ni kalanin 9 ma. Kala 1 be kafo o la, u b'o dan, k'o hake fo.
 Da sarolen tigina be ke walanba la :



Bi	Ke
8	0

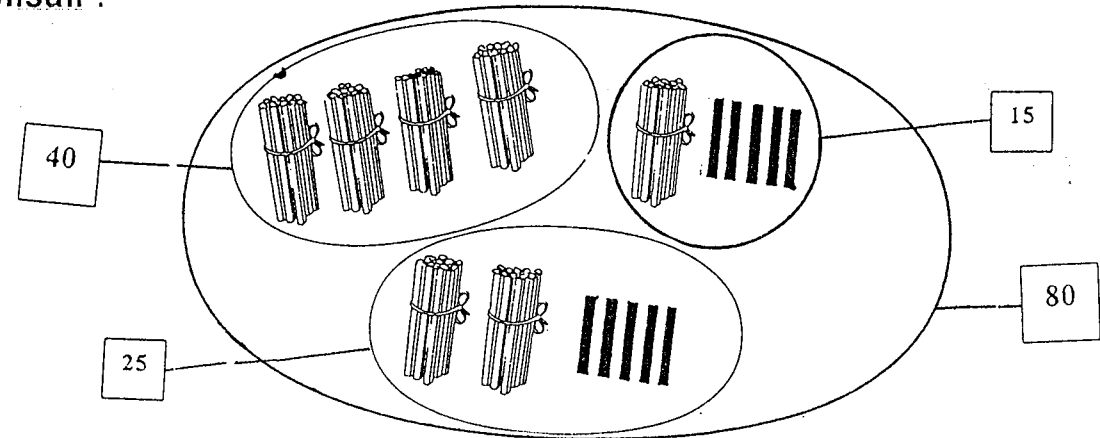
Da sarolen be saben ni jatedenw ni siginidenw ye walanba kan. A be kalan k'a saben walanninw kan ni jatedenw ni siginidenw ye.

80 80 80

Bi seegin Bi seegin Bi seegin

Baara keta 2 :
 Kulu kelenkelenna be 80 saracogo do ke n'a bolominenw ye k'a nefa (tigakolo, jiridenkise, belkise...)

Misali :



$$40 + 15 + 25 = 80$$

Baara keta 3 :
 Kulu kelenkelenna be 80 warakacogo do ke.

Misali :

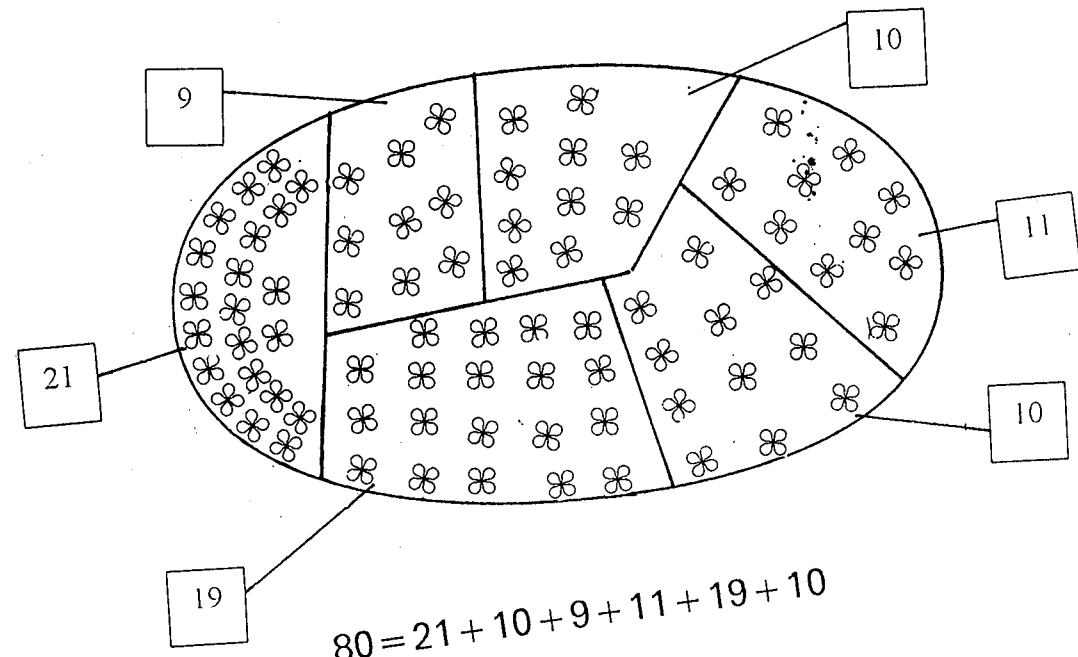
$$80 = 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10$$

$$80 = 45 + 15 + 15 + 5$$

$$80 = 10 + 30 + 25 + 15$$

$$80 = 28 + 12 + 17 + 13 + 10$$

$$80 = 60 + 10 + 5 + 5$$



Degeliw :

1. Taamasiyen numan ($< > =$) bila tomiw no na.

$80 \dots 60 + 10$

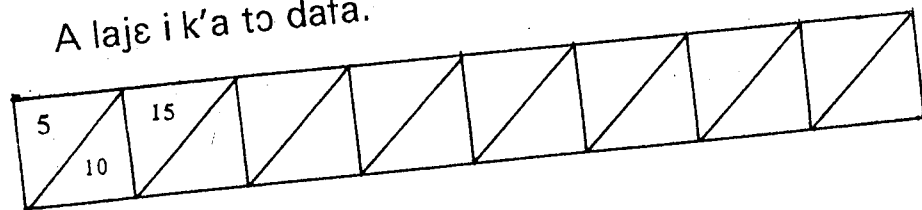
$60 + 20 \dots 76$

$77 \dots 60 + 17$

$40 + 40 \dots 30 + 30$

$70 \dots 5 + 55$

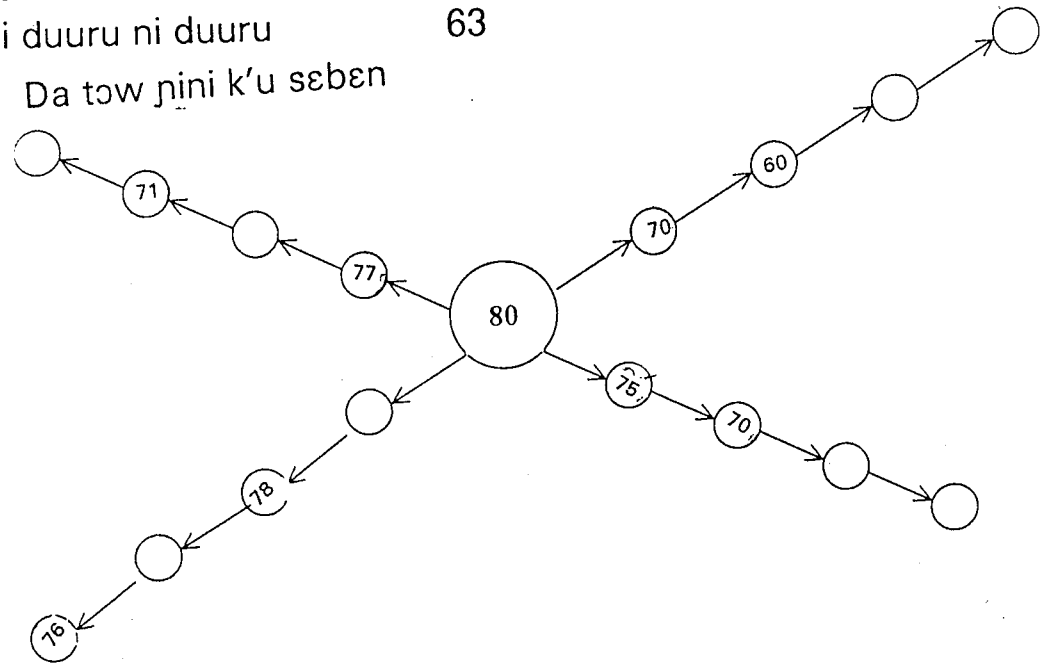
2. A laje i k'a to dafa.



3. Daw n'u sebenni bolo di jogon ma

Bi seegin	70
Bi wooro ni saba	0
Bi wolonwula	80
Fu	55
Bi duuru ni duuru	63

4. Da tow jini k'u seben



5. Da jininew seben tomiw no na.

$70 + \dots = 80$

$0 + \dots = 80$

$80 + \dots = 80$

$76 + \dots = 80$

$40 + \dots + 20 = 80$

$50 + 30 = \dots$

Kafoli ni dɔbɔli, tɛmɛ tɛ kɛ 80 kan

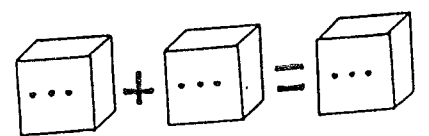
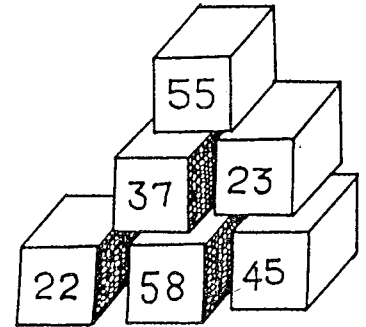
1. Daw dafa katimu kɔnɔ :

0	1	2	3	4	5	6	7	8	9	10
11	12				27					
								52		
77	...	...	80							

2. Dɔbɔli katimu kɔnɔdaw dafa.

-	11	19	55	60	63	77	79	80
80							1	

3. Dɔ tonnenw na, da fila jini minnu mume be beɛ da wɛrɛ ma, tonnen tow la, ka sɔrɔ k'u sɛbɛn.



- Da tonnenw na, da fila jini minnu mume be ben 80 ma, ka sɔrɔ k'u sɛbɛn .

..... + = 80

4. Daw lakoori kelen-kelen, minnu ka ca ni 60 ye, nka u ka dɔgɔ ni 80 ye.

63	79	60
27 + 31	bi duuru	78-12
	80	bi wolonwula

5. Jatesigiw dafa :

80	80	45	42
- 50	- 19	+ 25	+ ...
-----	-----	+ 10	-----
=	=	=	= 80

6. Katimu kɔnɔdaw dafa ni jatedenw walima siginidenw ye

Ni siginidenw ye.	Ni jatedenw ye	Kafoli dɔ.
bi wolonwula ni kelen	-----	-----
bi seegin	-----	-----
	35	30 + 5
tan ni duuru	-----	-----
		70 + 4

Daw k'a ta 80 na ka t'a bila 89 na .

I Kuntilenna : Kalansen laban na, kalanden ka kan ka se :

- Ka daw soro
- Ka daw kalan, k'u seben ni jatedenw ni siginidenw ye
- Ka daw waraka
- Ka daw sanga jagon ma.

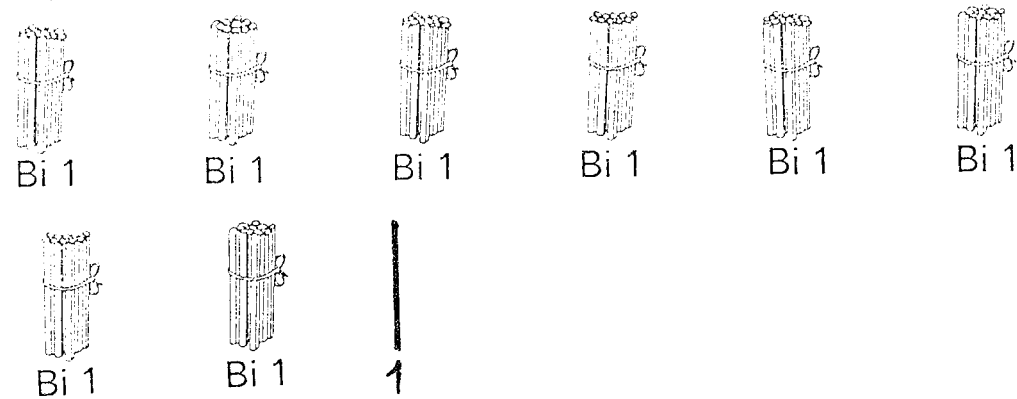
II. Baarakeminenw : bikasiriw, belekisew, jiridenkisew ani fen werew.

III. Taasiara :

Baara keta 1:

Karamogo b'a jini kalandenw fe u ka bikalasiri 80 ta. Kala kelen be kafo o la. U b'o dan k'o hake fo.

Da soroli tigina be ke walanba kan



Da sorolen be seben katimu kono

81	
Bi	Kelen
8	1

Da sorolen be seben ni siginidenw ni jatedenw ye walanba kan, a be kalan k'a seben walanninw kan ni jatedenw ni siginidenw ye.

81

bi seegin ni kelen

81

bi seegin ni kelen

81 sorola cogo min, da tow soroli be ke o cogo kelen na fo ka se 89 ma.

Misali :

$$80 + 1 = 81$$

$$80 + 2 = 82$$

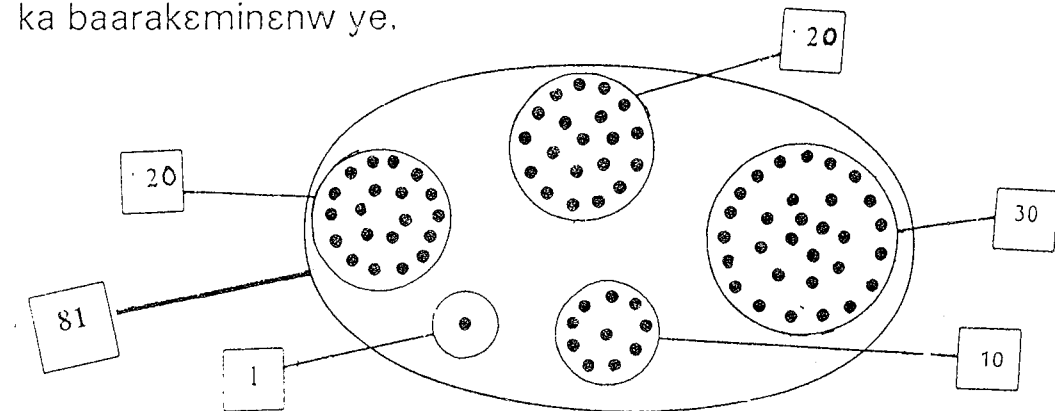
$$80 + 3 = 83$$

$$80 + 9 = 89$$

da sorolen bee be seben katimu kono. Sinsini be ke katimu kan, daw sebensogo jefoli la.

Baara keta 2.

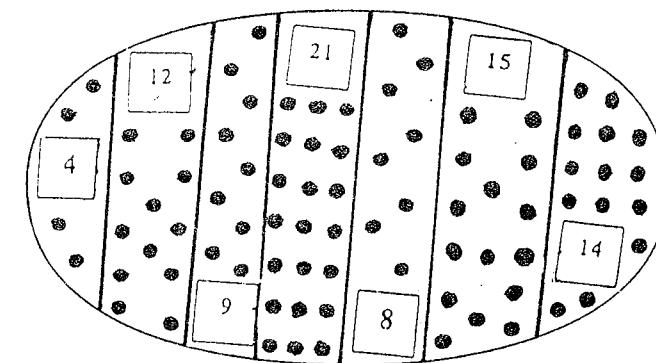
Karamogo b'a jini kalandenw fe u ka 81 sorocogo do ke n'u ka baarakeminenw ye.



Misali :

$$30 + 20 + 10 + 20 + 1 = 81$$

- 81warakacogo be soro ka ke kalandenw fe.



210

Baara keta 3.

Da kelen-kelen be di kuluw ma u k'o warakali dow ke.

Misali : 87 ye : 20 + 20 + 20 + 30 + 7 ye

85 ye : 30 + 40 + 5 + 10 ye

Da tow fana be se ka waraka nin cogo in na k'a ta 81 na ka t'a bila 89 na.

Baara keta 4 :

Daw be sanga jagon ma.

Degeliw :

1. Da min be nin da in je ani min b'a ko olu seben.

..... 88.....

..... 86.....

..... 82.....

..... 80.....

..... 83....

2. Da ninu seben ka bo dogomannin na ka taa caman na :

83 - 80 - 89 - 87 - 85 - 88 - 86 - 82 - 84 - 81 -

3. Tije wa nkalon T NK (jaabi numan di)

84 ka ca ni 82 ye /.../ /.../

89 ni 89 ye kelen ye /.../ /.../

87 ka dogo ni 81 ye /.../ /.../

85 ka ca ni 87 ye /.../ /.../

4. Da ninu sanga jagon ma ni taamasiyen numan ye :

< , > , =

8386 ; 85....82 ; 87.....80

88.....81 ; 83.....89 ;

5. Minnu hake ye kelen ye, olu bolo di jagon ma.

86

80 + 9

89

80 + 8

84

80 + 6

86

80 + 4

6. 80 soro ni nin da dow kafolen ye jagon na ye

20 , 8 , 3 , 2 , 48 , 40 , 30 , 10 , 80 , 53 , 7 , 0.

7. Daw seben ni siginidenw ye.

80 - 83 - 89 - 81 - 85.

Kafoli ni dɔbɔli, tɛmɛ tɛ kɛ 89 kan

1. Jatesigiw jaabi sɛbɛn

$$\begin{array}{r} 83 \\ - 42 \\ \hline \end{array} \quad \begin{array}{r} 74 \\ - 38 \\ \hline \end{array} \quad \begin{array}{r} 87 \\ - 9 \\ \hline \end{array} \quad \begin{array}{r} 34 \\ + 45 \\ \hline \end{array} \quad \begin{array}{r} 50 \\ - 44 \\ \hline \end{array} \quad \begin{array}{r} 49 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ + 34 \\ \hline \end{array} \quad \begin{array}{r} 78 \\ + 9 \\ \hline \end{array} \quad \begin{array}{r} 85 \\ - 8 \\ \hline \end{array} \quad \begin{array}{r} 36 \\ + 45 \\ \hline \end{array} \quad \begin{array}{r} 63 \\ - 47 \\ \hline \end{array} \quad \begin{array}{r} 78 \\ - 48 \\ \hline \end{array}$$

$$\begin{array}{r} 47 \\ - 10 \\ \hline \end{array}$$

2. Jatejiniw

- Ngolo fa ye dɔrɔmɛ 57 di ma, a ba ye dɔrɔmɛ 28 di ma.

Ngolo ka wari ye dɔrɔmɛ joli ye ?

Ngolo ye gafe dɔ san dɔrɔmɛ 39 a ka wari la. A ka wari to ye joli ye ?

- Kalanden 37 bɛ kalanso folɔ kɔnɔ, 49 bɛ filanan kɔnɔ. Musomannin 49 bɛ kalanso fila ninnu kɔnɔ.

Kalanso fila ninnu kalandenw ye joli ye ?

Cɛmannin ye joli ye ?

Da : 90

I. **Kuntilenna** : Kalansen laban na kadanden ka kan ka se

- ka da 90 sɔrɔ.

- K'a kalan, k'a sɛbɛn ni jatedenw ni siginidenw ye.

- K'a waraka.

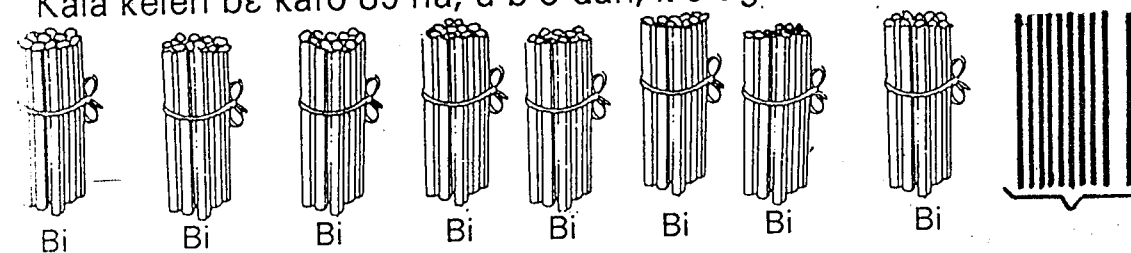
II. **Baarakɛminɛnw** : Bikalasiriw, bɛlɛkisɛw, jiridenkisɛw ani fɛn wɛrɛw.

III. **Taasira** :

Baara kɛta 1 :

Kalandenw bɛ kalanin 89 dan n'o bɛ bɛn bikalasiri seegin ani kala kɔnɔntɔn ma.

Kala kelen bɛ kafo 89 na, u b'o dan, k'o tigma kɛ :



Bi	Ke
9	0

Da sɔrɔlen in bɛ sɛbɛn walanba kan. A bɛ, kalan k'a sɛbɛn walannin kan ni jatedenw ni siginidenw ye :

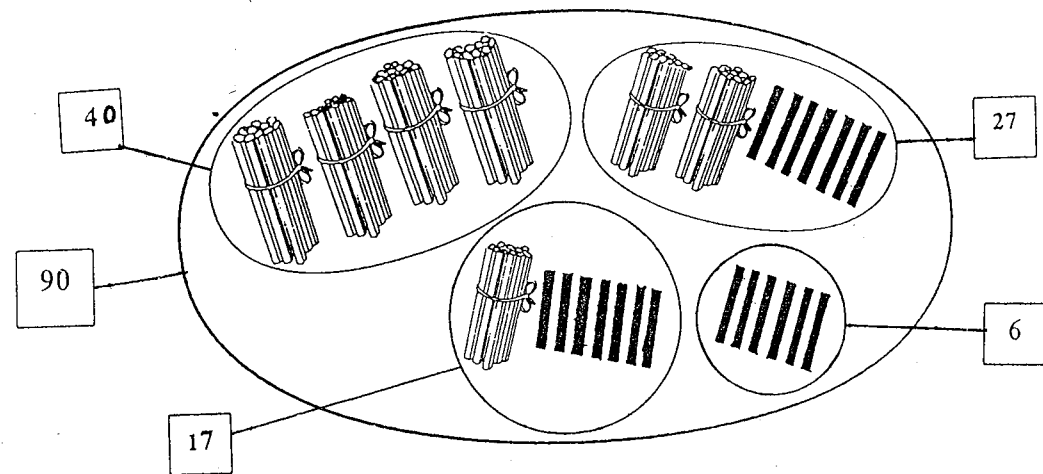
90

90

bi kɔnɔntɔn

bi kɔnɔntɔn

Baara keta 2 : Kulu kelen kelenna bee be 90 saracogo do ke n'a ka baarakeminenw ye.



Baara keta 3 : Kalandenw be 90 warakacogo do ke :

Misali :

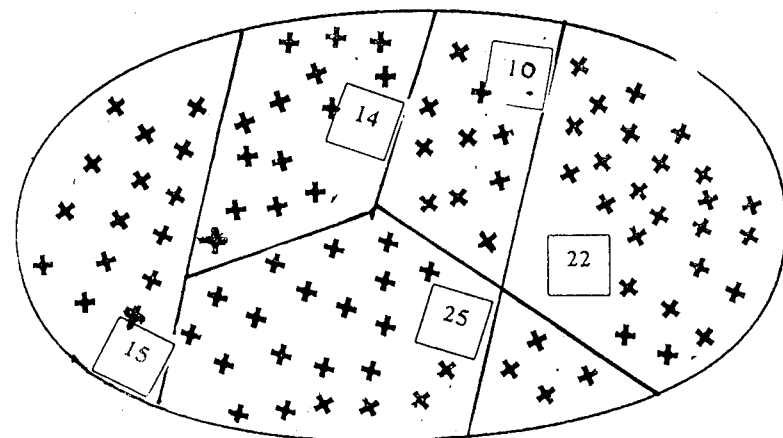
$$90 = 80 + 10$$

$$90 = 40 + 50$$

$$90 = 58 + 2 + 30$$

$$90 = 20 + 20 + 20 + 30$$

$$90 = 15 + 22 + 14 + 10 + 4 + 25$$



Marata : bi 10 ye keme 1 ye

Degeliw :

1. Daw seben ka bo 90 na ka na 80 na.
2. Daw seben tan - tandanni na ka bo 90 ka na 10 na .
3. Da ninu sigi jagon ko ka bo dogomannin na ka taa caman na.

90, 8, 88, 21, 86, 43, 82, 55, 0, 87, 84.

4. Taamasiyen numan bila tomiw no na

>, < walima =

90...18 ; 78...87 ; 83...73

90...80 + 10 . 90...80 + 2 . 75...70 + 1

80 + 3....90 82 + 4 ..+90 . 90...80 + 7.

5. Da minnu kafolen be ben 90 ma, olu bolo di jagon ma ni tiiri ye.

$$80 + 10$$

$$60 + 0$$

$$70 + 20$$

$$20 + 60$$

$$90$$

$$50 + 30$$

$$30 + 60$$

$$40 + 50$$

$$40 + 40$$

Daw k'a ta 90 na ka t'a bila 99 na .

I. Kuntillenna : Kalansen laban na, kalanden ka kan ka se.

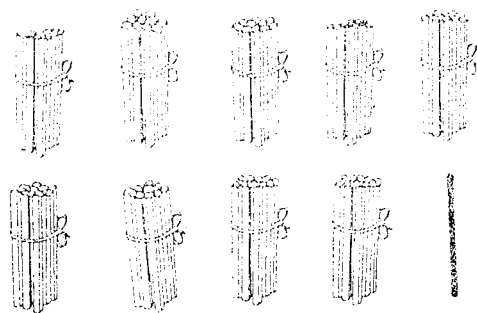
- Ka daw soro
- Ka daw kalan, k'u seben ni jatedenw ni siginidenw ye.
- Ka daw waraka.
- Ka daw sanga jigon ma.

II. Baarakeminenw : bikalasiw, belakisew, jiridenkisew, fen werew.

III. Taasira :

Baara keta 1 : Karamogo b'a jini kalandenw fe u ka bikalasiw 90 ta .

90 + 1 tigma be walanba kan 91 be seben katimu kono



Bi	Ke
9	1

Kala 1 be fara o kan. U b'o dan k'o hake fo. Da sorolen be seben ni siginidenw ni jatedenw ye walanba kan, a be kalan k'a seben walannin kan ni jatedenw ni siginidenw ye.

91
Bi konanton ni kelen

91
Bi konanton ni kelen

91 sorola cogo min, da tow soroli be ke o cogo kelen na fo ka se 99 ma.

Misali : $90 + 2 = 92$

$90 + 3 = 93$

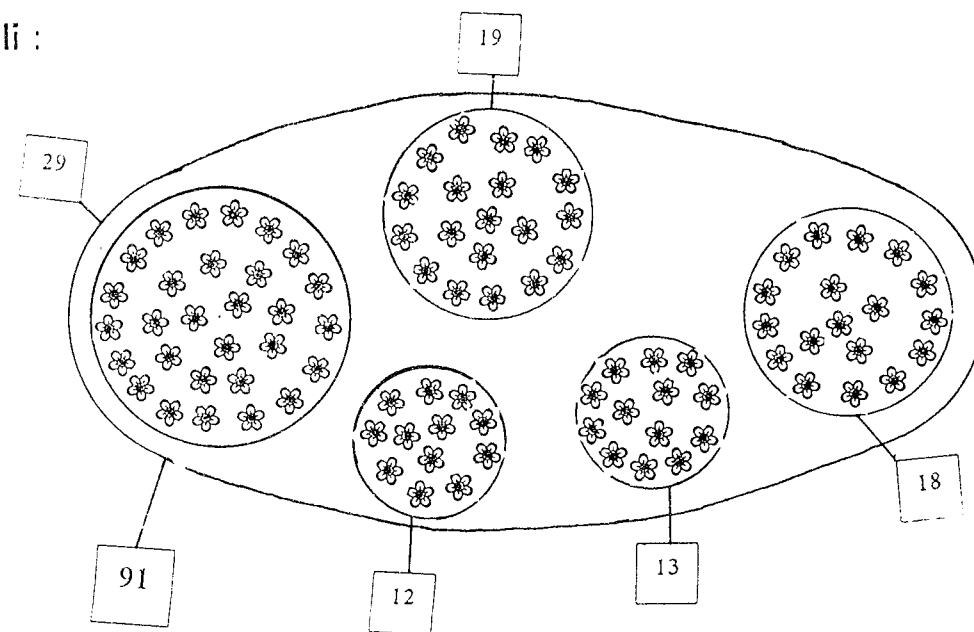
$90 + 4 = 94$

$90 + 9 = 99$

Da sorolen be seben katimu kono . Sinsin be ke katimu kan, daw seben cogo jefoli la.

Baara keta 2 : Kalandenw be 91 sorocogo do ke n'u ka baarakeminenw ye .

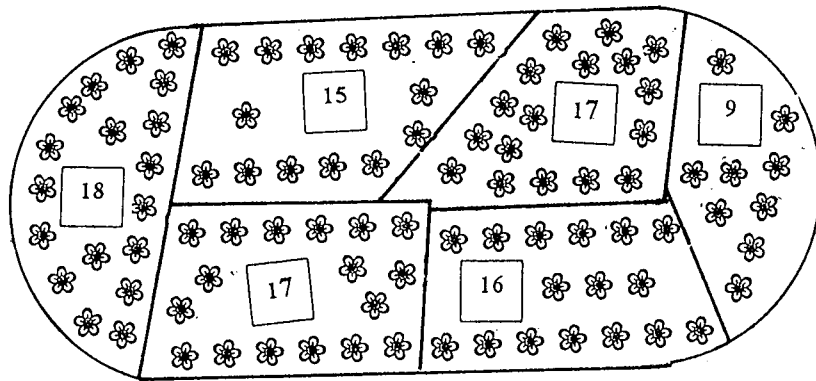
Misali :



$29 + 19 + 12 + 13 + 18 = 91$

Baara keta 3 :
91 warakali do be ke

Misali :



$$91 = 18 + 15 + 17 + 16 + 17 + 9$$

Da kelen-kelen be di kuluw ma u k'o warakali daw ke.

Misali :

$$93 = 40 + 12 + 28 + 10 + 3$$

$$99 = 20 + 30 + 22 + 17 + 10$$

Da tow fana be se ka waraka nin cogo in na k'a ta 91 na ka t'a bila 99 na.

Degeliw :

- 1- Da ninnu seben ka bo caman na ka na dogomannin na 90 - 93 - 98 - 91 - 73, 88 - 28, 41, 92, 99, 66, 95, 96,
2. Daw seben duuru -duurudanni na ka bo o la ka t'a bila 95 la

3. Da ninnu sanga jagon ma ni taamasiyen numan ye <, > walima =

$$99 \dots\dots\dots 90 ; \quad 91 \dots\dots\dots 91 ;$$

$$90 \dots\dots\dots 82 ; \quad 98 \dots\dots\dots 98 ;$$

$$99 \dots\dots\dots 98 ; \quad 94 \dots\dots\dots 95 ;$$

4. Daw sebenni dafa :

$$99, 98, \dots, \dots, 95, \dots, 93, 92, \dots, 90.$$

5. Minnu hake ye kelen ye, olu bolow di jagow ma

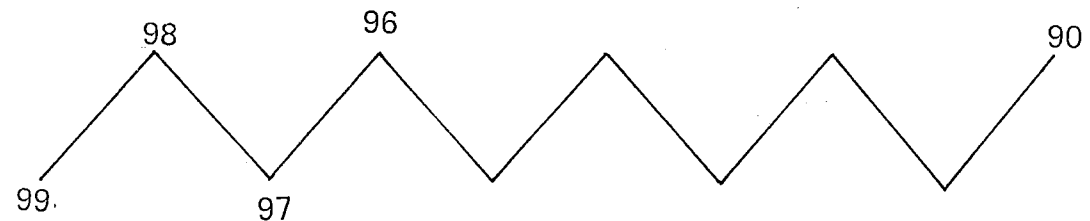
$$\boxed{98} \quad \boxed{90 + 3} \quad \boxed{\text{bi konanton ni duuru}}$$

$$\boxed{92} \quad \boxed{90 + 2} \quad \boxed{\text{bi konanton ni saba}}$$

$$\boxed{95} \quad \boxed{90 + 8} \quad \boxed{\text{bi konanton ni fila}}$$

$$\boxed{92} \quad \boxed{5 + 90} \quad \boxed{\text{bi konanton ni seegin}}$$

6. Daw seben tomiw koru.



7. Daw sigi katimu konu

$$97, 90, 98, 95, 92, 99, 86, 83$$

8. Daw fila - filadanni ke k'a ta 2 la ka t'a bila 90 la.

Kafoli ni dɔboli , tɛmɛ tɛ kɛ 99 kan

1. Jatesigiw jaabi sɛbɛn :

$$\begin{array}{r} 81 \\ + 17 \\ \hline = \end{array} \quad \begin{array}{r} 92 \\ - 36 \\ \hline = \end{array} \quad \begin{array}{r} 90 \\ - 7 \\ \hline = \end{array} \quad \begin{array}{r} 67 \\ + 28 \\ \hline = \end{array} \quad \begin{array}{r} 98 \\ - 49 \\ \hline = \end{array}$$

$$\begin{array}{r} 81 \\ + 10 \\ \hline = \end{array} \quad \begin{array}{r} 72 \\ - 45 \\ \hline = \end{array} \quad \begin{array}{r} 93 \\ - 92 \\ \hline = \end{array} \quad \begin{array}{r} 92 \\ - 9 \\ \hline = \end{array} \quad \begin{array}{r} 75 \\ + 17 \\ \hline = \end{array}$$

2. Jatepiniw

- Karamoɔo nana ni walannin 90 ye kalanso kɔnɔ. A ye walannin 27 di kulu foɔ kalandenw ma, ka 29 di filanan taw ma.

Karamoɔo ye walannin joli di kalandenw ma ?

Walannin joli tora karamoɔo bolo ?

- Ba ye ɲɔbɔrɛ 34 sɔrɔ a ka foroba la, ka ɲɔbɔrɛ 27 sɔrɔ a ka foronin na. A ye ɲɔbɔrɛ 19 feere.

Ba ye ɲɔbɔrɛ joli sɔrɔ ?

Ba ka ɲɔbɔrɛ to ye joli ye ?

Da 100

I. **Kuntilenna** : Kalansen laban na, kalanden ka kan ka se :

- ka 100 sɔrɔ, k'a kalan, k'a sɛbɛn ni jatedenw ni siginidenw ye,

- ka 100 waraka.

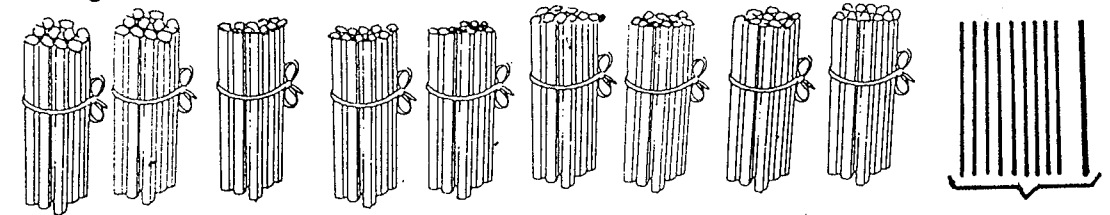
II. **Baarakɛminɛnw** : bɛlɛkisɛw, kalaninw

III. **Taasira** :

Baara kɛta 1.

Kalanin 99 bɛ ta, kalanin 1 bɛ fara o kan, kalandenw bɛ danni kɛ, ka da sɔrɔlɛn fo.

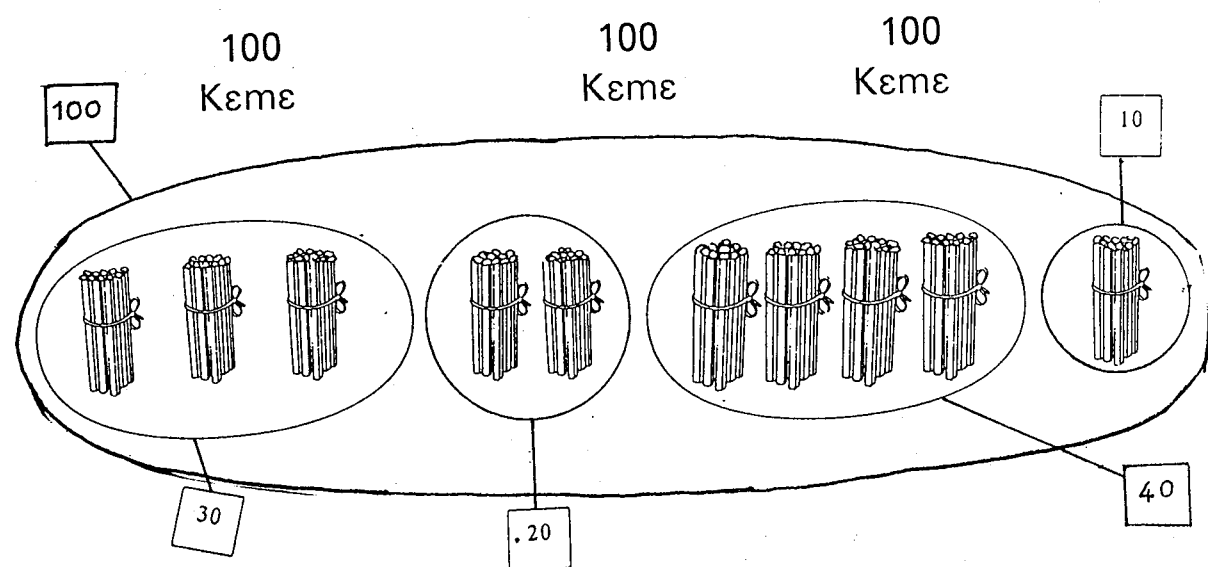
A tigena bɛ kɛ walanba kan.



Kɛmɛ	Bi	Kɛlɛn
1	0	0

Sinsin bɛ kɛ katimu kan da sɛbɛncogo ɲɛfoɔli la.

- 100 be kalan, k'a seben ni jatedenw ni signidenw ye :



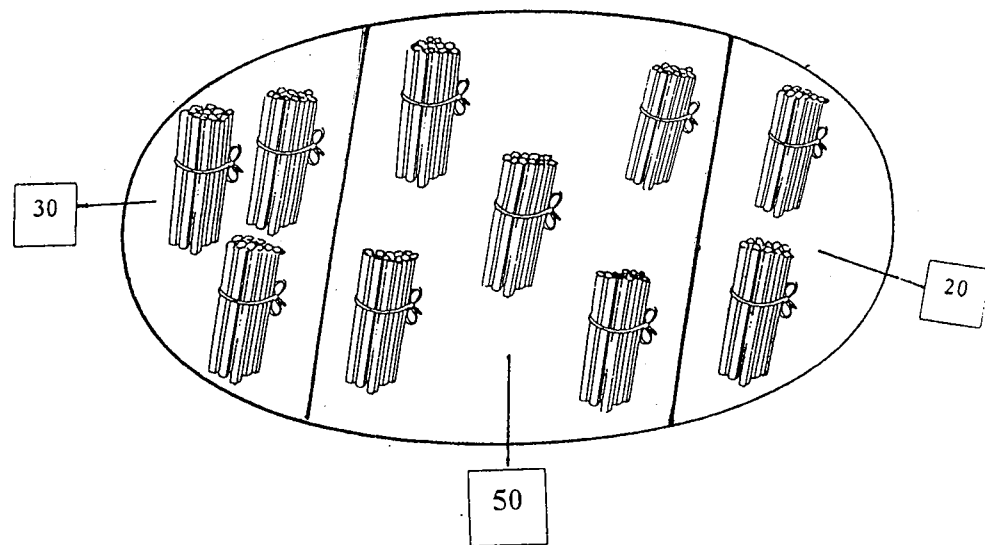
Baara keta 2.

-Kalandenw be kalaninw ta, k'u ke saraw ye minnu kalanin hake be ben 100 ma.

$$30 + 20 + 40 + 10 = 100$$

- Kalandenw be 100 warakali dow ke.

Misali :



Baara keta 3.

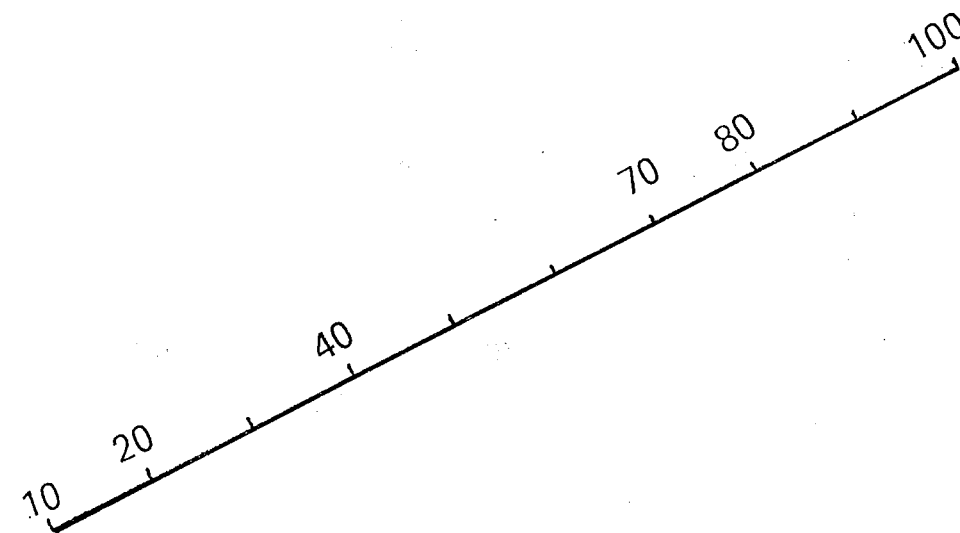
Belekise 100 be ke sara damado ye.

Misali :

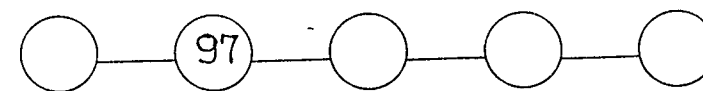
$$100 = 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10$$

Degeliw :

1. tan - tandanni na, pan kera da minnu kan, olu seben.



2. da tow seben koori lankolonw kono



3. Da minnu ye kelen ye signidenw ni jatedenw na, olu bolo di jagon ma.

tan	100
bi saba	70
bi naani	40
mugan	30
bi wɔɔɔ	90
bi segin	60
keme	20
bi kɔnɔntɔn	80
bi duuru	50
bi wolonwula	10

4. Da minnu kafolen be ben 100 ma, olu pi 100 bolo di jagon ma ni tiiri ye

$$\boxed{90 + 10}$$

$$\boxed{80 + 20}$$

$$\boxed{30 + 60}$$

$$\boxed{40 + 20}$$

$$\boxed{100}$$

$$\boxed{20 + 50}$$

$$\boxed{30 + 30}$$

$$\boxed{40 + 60}$$

$$\boxed{70 + 30}$$

Seginkanni :

1-Jatesigiw jaabiw jini :

$$46 + 32 = \dots ; 40 + 50 = \dots ; 86 - 51 = \dots ; 78 - 35 = \dots ;$$

$$96 - 53 = \dots ; 58 + 36 = \dots ; 46 + 32 = \dots ; 73 - 58 = \dots ;$$

$$87 - 55 = \dots ;$$

2. Jatesigiw jaabi jini :

77	67	95	66	80
+ 7	+ 33	- 58	- 47	- 25
+ 10				
=====	=====	=====	=====	=====

93	88	65	47	15
- 36	- 38	+ 28	+ 48	+ 85
=====	=====	=====	=====	=====

3. Jatejiniw :

- Ngolo ye mangoroden 85 kari sɔgɔma, ka 15 kari wula fa. Ngolo ye mangoroden joli kari tile kɔnɔ ?

- Gafe 95 dira kalanyɔɔ ma. Kalanyɔɔ kuntigi ye gafe 88 di kalandenw ma. Gafe to ye joli ye ?

- Jurukisɛfeerela do ye jurukisɛ 90 dilan . A ye 33 feere ntenen, ka 21 feere Araba . A ye jurukisɛ joli feere ? Jurukisɛ joli tor'a bolo ?

4. Daw bolo di jagon ma ka bo dogomannin na ka taa caman na.

8	3	13	7	11	2	9
---	---	----	---	----	---	---

Da 100 warakali

I. Kuntilemma : Kalansen laban na, kalanden ka kan ka se :

- ka 100 waraka,
- ka warakali ke k'a ta 1 na ka t'a bila 100 na.

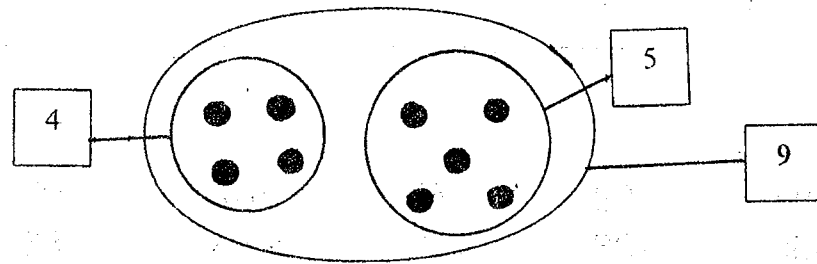
II. Baarakeminenw : kalanso konominenw, ani fen werew.

III. Taasira

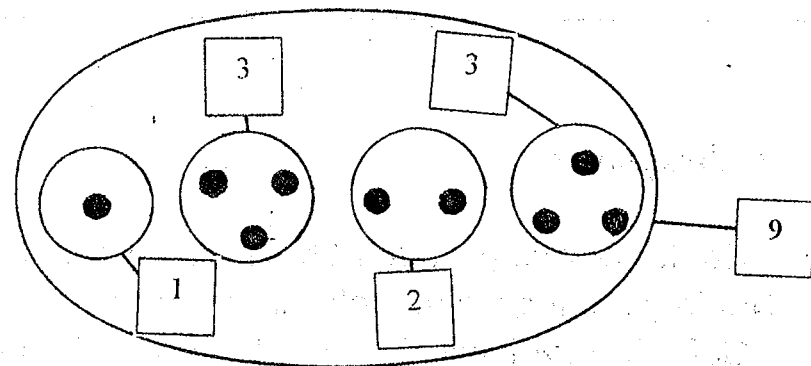
Baara keta 1

Kalandenw be belekise 9 dan k'u ke sara damado ye.

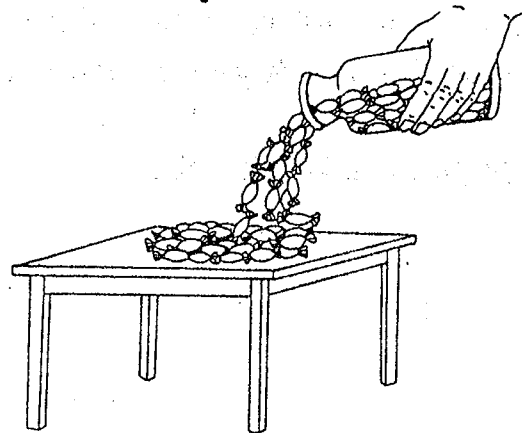
- sara fila



- sara naani



warakali be ke ni fen werew ye k'a ta 1 na ka t'a bila 9 na.



Baara keta 2 :

Kalandenw be kalanin 12 ta k'u ke sara damado ye.

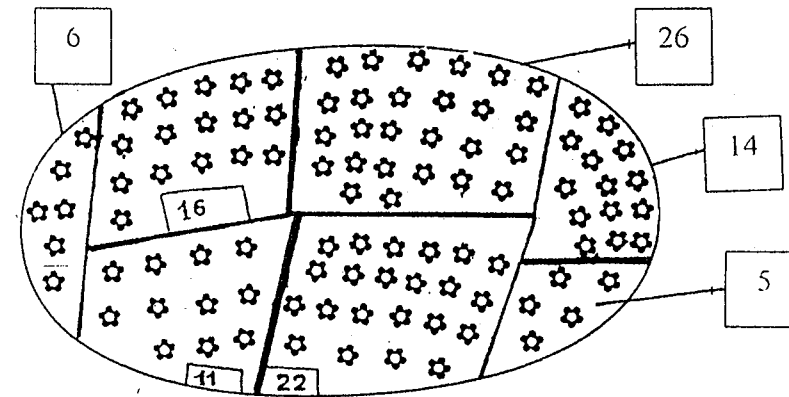
- sara saba : $12 = 4 + 5 + 3$

- sara duuru : $12 = 1 + 3 + 5 + 1 + 2$

warakali be ke ni fen werew ye k'a ta 10 na ka t'a bila 99 na.

Baara keta 3 :

Kalandenw be belekise 100 ta k'u ke sara damado ye.



$$26 + 6 + 11 + 5 + 22 + 14 + 16 = 100$$

Warakali be ke ni fen do 100 ye.

Degeliw :

1. Sebenniw dafa.
- 8 = 3 +
- 14 = + 8
2. 100 – waraka tan-tan ye
3. 100 – waraka mugan – mugan ye
4. 100 – waraka bi duuru – bi duuru ye.
5. 100 – waraka mugan ni duuru - mugan ni duuru ye
6. 100 – warakali dafa

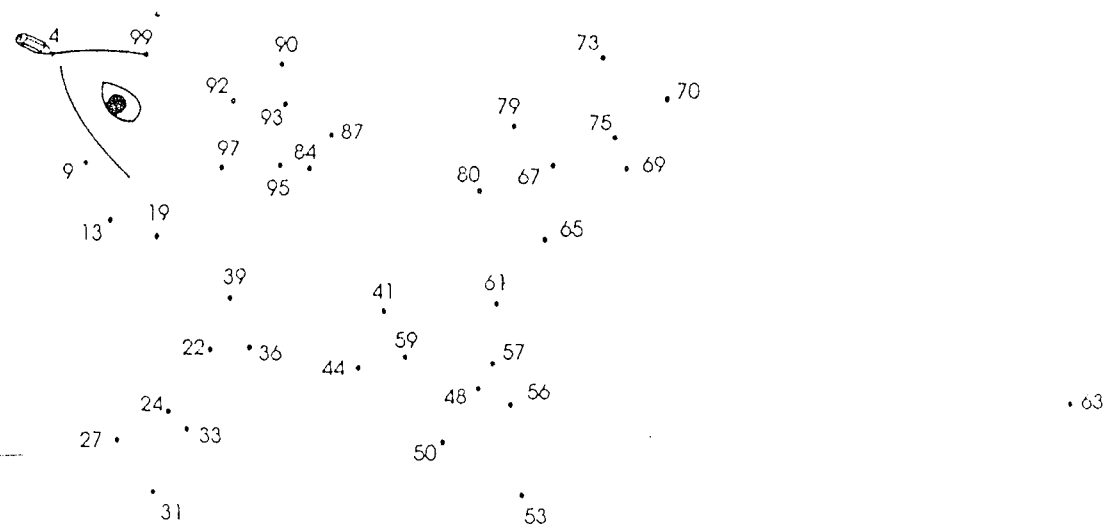
- 100 = 90 +

- 100 = 50 + + 10

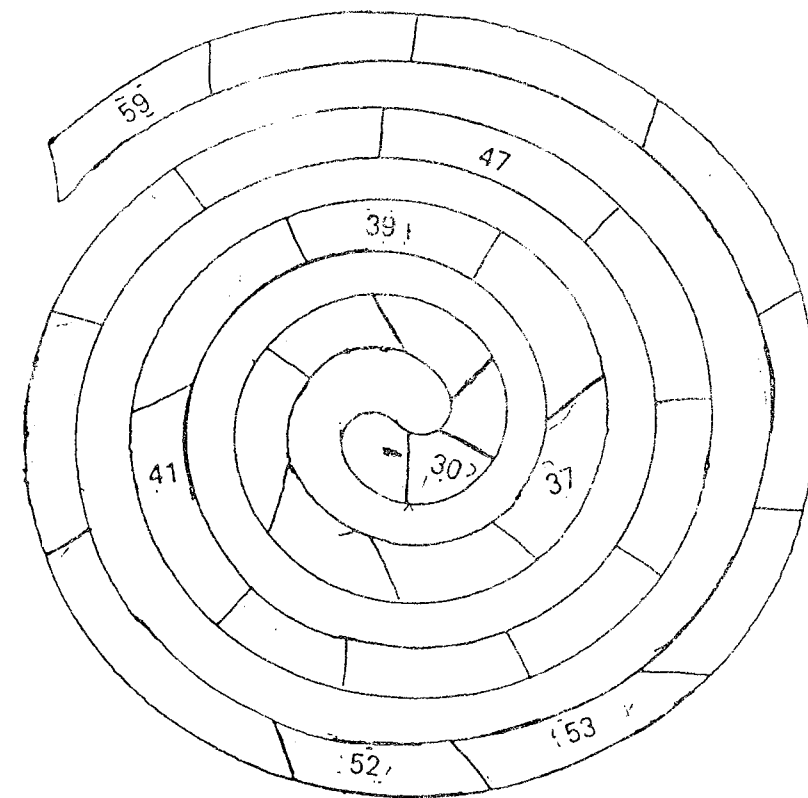
- 100 = ... + 25 + 50

100 = 30 + + 40.....

7. Daw bolo di jigon ma k'a ta dogomannin na ka se caman na.



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	99	99
100									



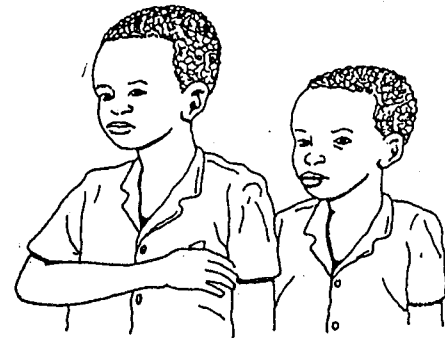
Janya dɔnni

I.Kuntilenna : Kalansen laban na, kalanden ka kan ka se :

- Ka fen fila janya sanga ɲogon ma ;
- Ka fenw sigi ɲogon ko ka da u janya kan

II.Baarakeminɛnw : Sebenfura, gaari, berew walima sigida fen werew,

III.Taasira :



Baara kɛta 1

-Karamogo be kalanden fila jo ɲogon koro minnu kundama te kelen ye, k'u ko don ɲogon na, ka kalandenw ɲininka min ka jan ni min ye ani min ka surun ni min ye.

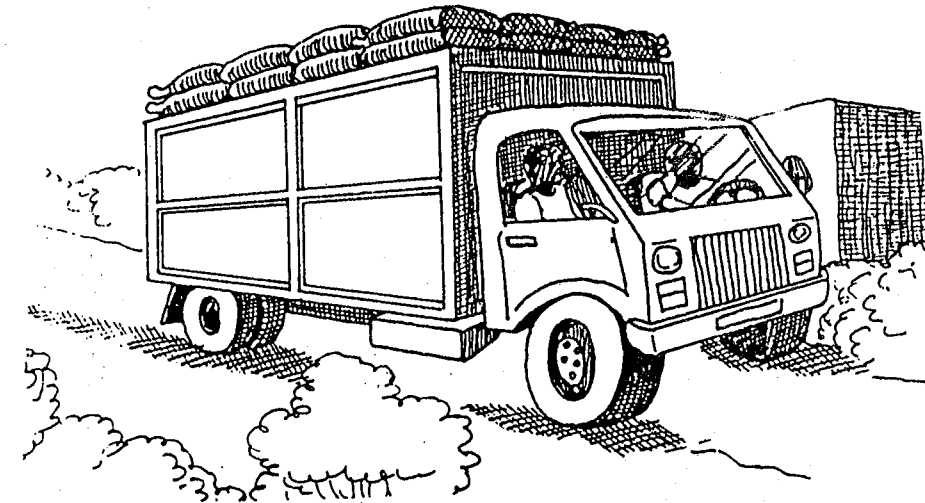
- Karamogo be bere fila da ɲogon kerɛfe tabali kan minnu janya te kelen ye.

-Kakandenw be na bere jamanjan ni bere surunman jira.

-Gaari do be jira kalandenw na.

U be na gaari werew ta (jamanjan ni surunman k'olu sanga gaari jiralen in ma.

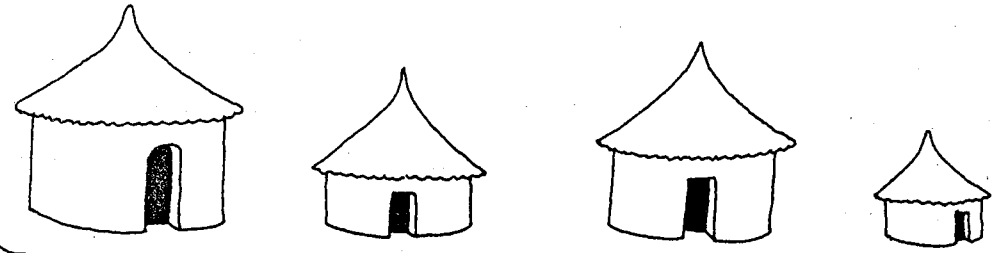
Misali caman werew be di ni fen werew ye janya ni surunya kan.



Yoro naaninan sumani

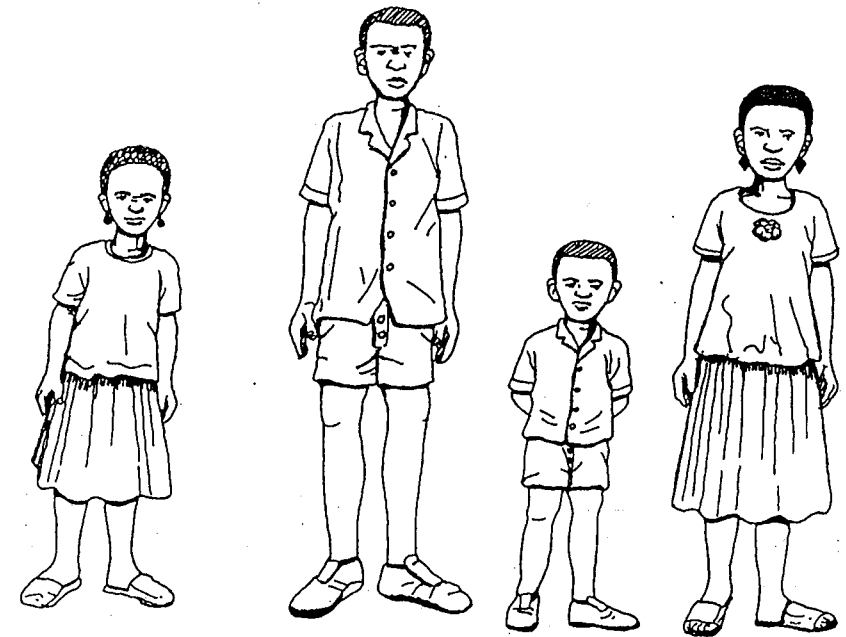


3. Buguso min ka jan ni taw ye , o lakoori.



4. Tiiri do file. Tiiri fila ci ka kelen janya n'a ye, ka kelen surunya n'a ye.

5. Nin taamasiyen (x) ke magow bee la jamanjan kan, i k'u bee la surunman koori.



6.- Dugu saba togo seben minnu ka jan i ka dugu la.

- Dugu saba togo seben minnu ka surun i ka dugu la.

Baara keta 2 :

Tiiri bilenman do be ci walanba kan

Kalandenw be na tiiri jamanjan ani tiiri surunman dow ci bilenman koro walima a sanfe ni farasu ne werew ye.

- Nin baara in misali jogonna werew be ke kalandenw fe walanninw kan.

Baara keta 3 :

Karamogo be jirisun 4 nataliye dilan sebenfura kan minnu janya te kelen ye.

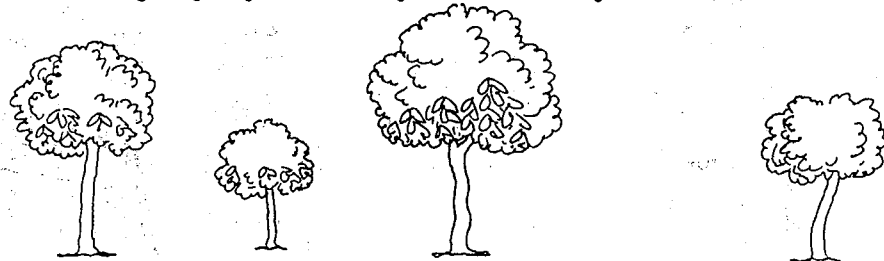
- Kalandenw be nin taamasiyen in (n) ke jirisun bee la jamanjan koro, ka soro k'a bee la surunman koori

Baara keta 4 :

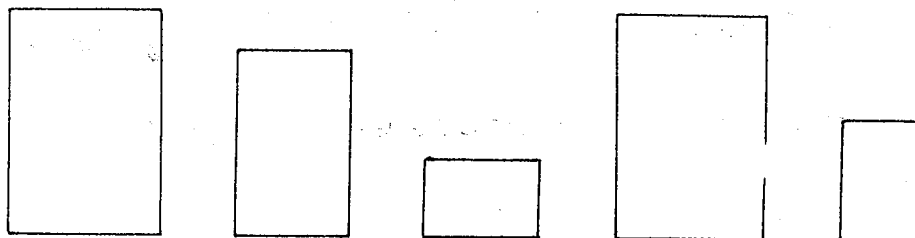
Kalandenw be janya ni surunya misali werew ke n'u ka baarakeminew ye i n'a fo ; gafew, walanninw cilanw, kayew n'u jogonnaw.

Degeliw

1. Jiri minnu janya ye kelen ye, taamasiyen in (x) k'olu koro.



2. Tangili minnu janya ye kelen ye, ne bilenman ke olu la



Girinya donni

I.Kuntilemma : Kalansen laban na, kalanden ka kan ka se :

- Ka fen fila ta, k'u girinya sanga jogon ma.

II.Baarakeminew : Sigida fenw

III.Taasira :

Baara keta 1 :

- Kalanden kelen -kelen bee be walannin kelen ta kininbolo la, ka kiriyon kelen ta numanbolo la k'olu sanga jogon ma k'u girinya fo kumasen dow kono (walannin ka girin ni kiriyon ye ; kiriyon ka fegeen ni walannin ye).

Baara keta 2 :

- Kalandenw be baara keta 1 misali caman ke n'u ka baarakeminew werew ye.

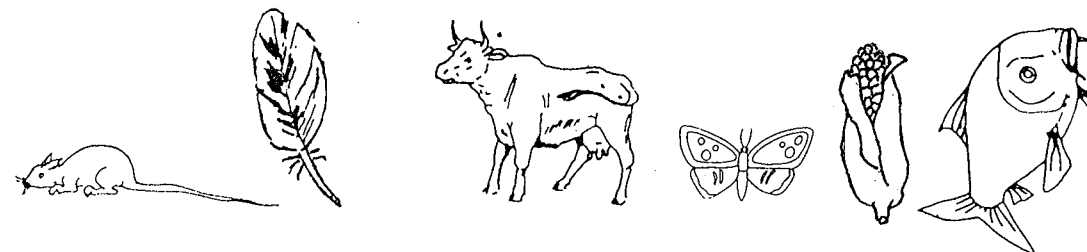
Baara keta 3 :

- Kalanden kelen be a jogon fila bamuni bo jogon koro k'u girinya fo.

- Segin be ke nin misali in kan kalanden werew fe.

Degeliw :

1. Nimafenw ni nintanfenw sanga jogon ma k'a ta min ka girin na ka na min ka fegeen na :



2. Karamogo ni kalandenw be misali caman ke farikolon senfe.

Wari dānni

I.Kuntilenna : Kalansen laban na, kalanden ka kan ka se :

- Ka warigananw dān
- K'ū falen

II.Baarakeminenw : warigananw (a sēbennen bē minnu kan 5, 10, 25, 50, 100, 250)



III.Taasira :

Baara keta 1 :

Kalandenw bē wari hake minnu dān, u bē bēn olu la kulu kōnō k'olu fō.

Baara keta 2 :

Karamōgō bē wari suguyaw jira kalandenw na :
Warigananw ni waribuluw (biyew).



Kalan bē kē ni warigananw ye.

Wariganan, suguya 6 ninnu bē di kuluw ma : dōrōmē 1, dōrōmē 2, dōrōmē 2, dōrōmē 5, dōrōmē 10, dōrōmē 20, dōrōmē 50.

- Karamōgō bē wari hake dō fō. Kuluw bē b'ō nini, ka n'ō bila tabali kan. Karamōgō b'ō hake sēbēn walanba kan, kalandenw b'a sēbēn u ka walanninw kan : dōrōmē 1, (d.1) dōrōmē 2, (d.2) dōrōmē 5, (d.5) dōrōmē 10, (d. 10) dōrōmē 20, (d. 20) dōrōmē 50 (d .50)

Misali :	10F	100F
	d.2	d.20

Baara keta 3 :

- dōrōmē 50 bē di kalanden dō ma, o ka taa o falen warimisenw na, tabali kan.

-dōrōmē 20 bē di kalanden dō wēre ma, o ka taa o falen tabalikanwarimisenw na.

Nin jōgōnnaw bē kē ni wariganan wēre w ye.

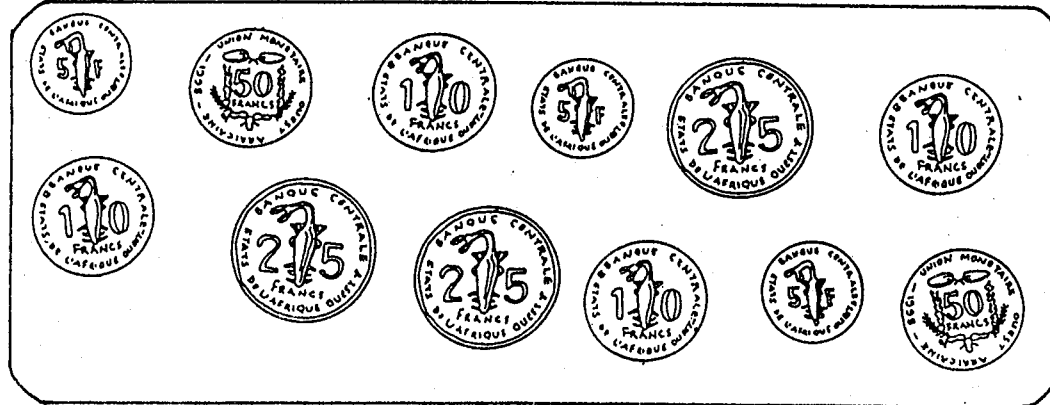
Baara keta 4 :

- Karamōgō bē wari hake dō fō, kalanden dō bē taa o ta k'ō jira :

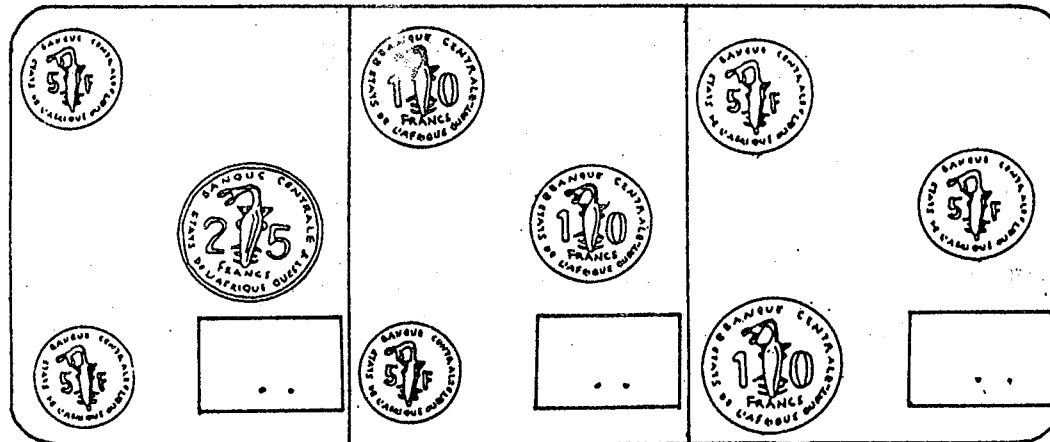
Misali : dōrōmē 100 hake bē jira ni warigananw ye.

Degeliw

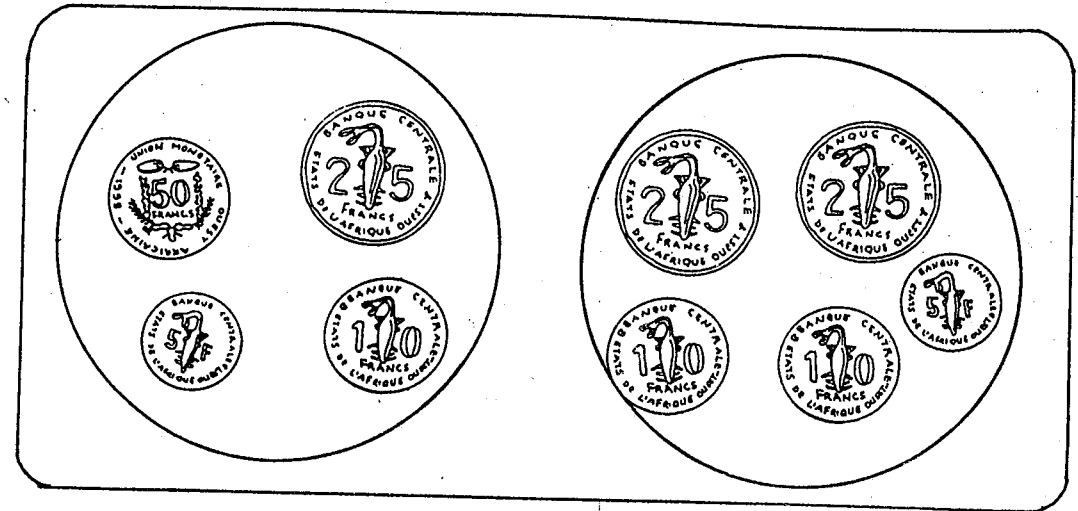
1. ƴe bilenman ke dɔrɔmɛ duuru gananw na, i ka bulama ke tan gananw na.



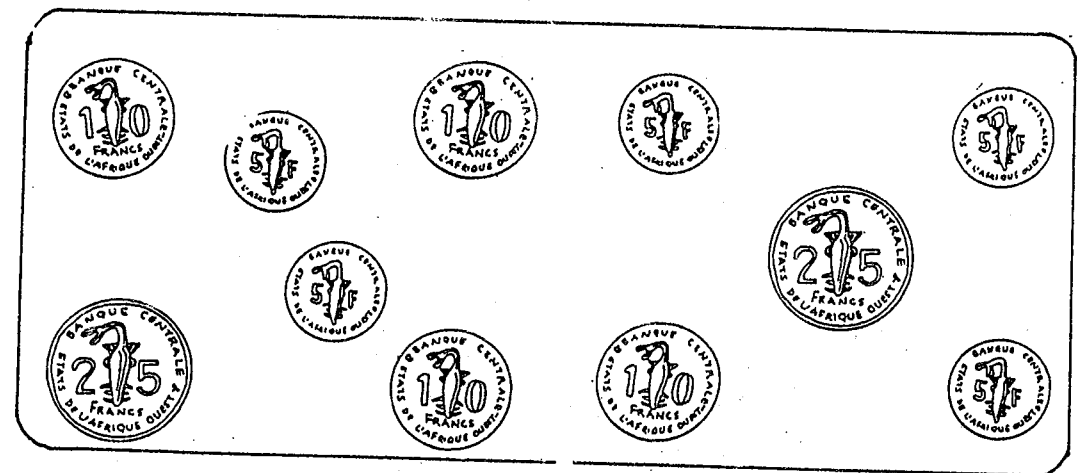
2. So saba ninnu kɔnwariƴananw mumɛ sɛbɛn soninw kɔnɔ u duguma.



3. Taamasiyɛn in (x) ke koori kan min kɔnwari ka ca.

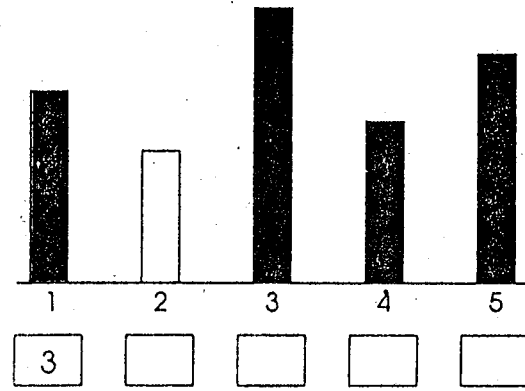


4. Nin warigananw dafa walasa i ka dɔrɔmɛ 50 (d.50) sɔrɔ.



Seginkanni :

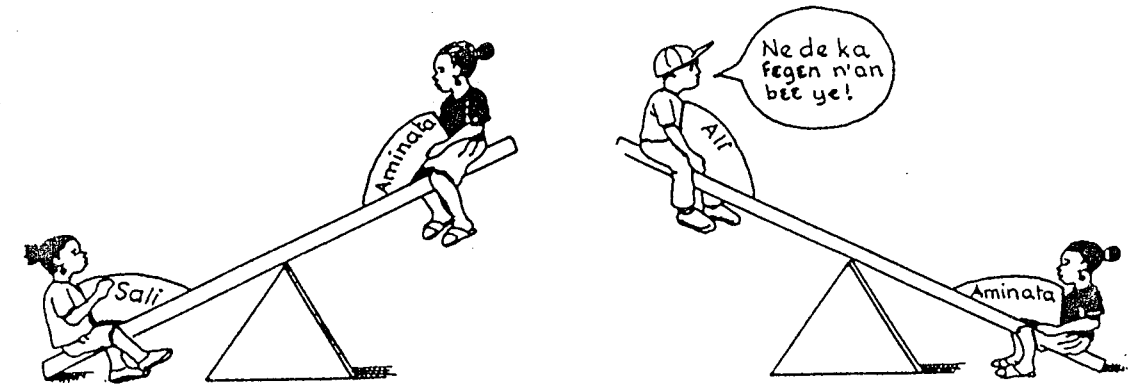
1. Sawuraw laje i k'u daw sabɛn soninw kɔnɔ jukɔrɔ, k'a damine u bɛɛ la jamanjan na, k'a laban ni u bɛɛ la surunman ye.



2. Tije wa Nkalon (T,NK), T walima NK sabɛn soninw kɔnɔ.

		Ali	Mayi	Sitan
Ka jan ni ...	Ali ye	Mayi ye	Sitan ye	
Ali				
Mayi				
Sitan				

3. Ja laje ka pininkaliw jaabi :



- Aminata ni Sali, jon ka girin ?
- Ali ka kuma ye tije ye wa ?
- Togow sabɛn k'a damine min ka girin, k'a laban min ka fagen na

4. Walanta jɛbila la, Aminata ba ye kaye 1 san a ye dɔrɔmɛ 45, ka jɔsilanbaranin san dɔrɔmɛ 23 ani kiriyɔn 1 dɔrɔmɛ 15. A ye nin sanniseben jira Aminata fa la, nka a kɔnɔsebenniwa ma dafa. U dafa.

SANNISEBEN		
Hake	Minen	Songo
1	Kaye	45
.....	Kiriyɔn	.....
.....	Jɔsilanbaranin	.....
Mumɛ sarata		

5. Warimisenw fara jɔgon kan ka dɔrɔmɛ 80 sɔrɔ cogoya saba la.

Danɛɛɛɛn

B	
Baarabolodalen	!Projet
Baarabolodalen kuntala jan	!Grand projet
Baarabolodalen kuntala surun	!Petit projet
Benkan sumanikelanw	! Unités conventionnelles!
Bonyali	!Agrandissement
C	
Ci dayɛɛɛɛn / ci datugulenw	!Ligne ouvertes / lignes fermées
Cikunkurun	!Segment
Cikunkurunci	!Tracé de segments
D	
Da	!Nombre
Da sɔrɔli	!Composition – formation
Dalakeɛɛni	!Rangement
Dalakeɛɛni	! Rangement (rythme)
Dalakeɛɛni k'a da misali dilen kan	!Rangement (rythme)
Danni	!Comptage
Danni ka jigin	!Decomptage
Danni ka yɛɛn	!Comptage
Danni ka bɔ da caman na	!Compte du plus grand ou
Danni ka bɔ da caman na	! Compter du plus grand au plus petit
Daw siginɔgɔnkɔ	!Ordonner les nombres
Da sɔrɔli	!Composition
Da warakali	!Décomposition
Daw katimu	!Tableau de classification
Dɔbɔli katimu	!Tableau de soustraction
Dɔbɔli keɛcogo	!Soustraction (technique)

Dɔbɔli kun	!Soustraction (sens)
Dɔbɔli, marata bɛ min na	!Soustraction avec retenue
Dɔbɔli, marata bɛ min na walima marata tɛ min na	!Soustraction avec ou sans retenue
Dɔbɔli, marata tɛ min na	!Soustraction sans retenue
F	
Faranɔgɔnkanni	!Associativité
Fɛɛɛw	!Stratégies
Fɔlɔ-fɔlɔ sumanikelanw	!Unités arbitraires
G	
Girinya dɔnni	!Masse (notion)
H	
Hake	!Mesure
J	
Janya dɔnni	!Longueur (notion)
Jateden	!Chiffre
Jatekalan	!Arithmétique
Jatekalan ɲɛbilabaaraw	!Activités prénumériques
Jatekalan ɲɛbila	!Prénumération
Jateɲini	!Problème
Jatesigi	!Opération
Jirali	!Présentation
Jɔyɔɔsigi	!Rangement

K

Ka ca ka dɔgɔ walima kɛrɛnɛn	! > , < .ou =
Ka ca ni	! Plus grand
Ka dɔgɔ ni	! Plus petit
K'a jira ka bɔ tow la	! Identifier
K'a kɔrɔta	! Peser
Kafoli jateminɛcogo min bɛ bɛn	!Propriété de l'addition
Kafoli katimu	!Tableau d'addition
Kafoli kɛcogo	!Addition (technique)
Kafoli kun	!Addition (sens)
Kafoli, marata tɛ min na	!Addition sans retenue
Kafoli, marata bɛ min na	!Addition avec retenue
Kafoli, marata bɛ min na walima marata tɛ min na	!Addition avec ou sans retenue
Ka jan a la – ka surun a la	!Loin de – près de
Kan – kɔrɔ	! Sur – sous
Katimu dondafilama	!Tableau à double entrée
Kɛnɛsumakalan	! Géométrie
Kɛta	!Consigne
Kunkɛrɔgɔnsigi	!Correspondance terme à terme!
Kunnabisikili	!Abstraction
Kunnajate	!Calcul mental
Kuntilenna kɛrɛnkɛrɛnnenw	!Objectifs spécifiques
Kuntilenna kunbabaw	!Objectif global
Kɔnɔ – kɔkan	!Dedans – dehors
Kɔnɔci	!Pavage
Kɔnɔna – kɔkanna	!Interieur – exterieur
Kɔrotali	! Pesée
Kunna – jukɔrɔ	!Au dessus – au dessous de

N

Nidungowolomani ni nidungosaradali	!Tris et classement libres
Numan – kinin	!Ganche- droite
Numan fɛ – kinin fɛ	!A gauche à droite

ɲ

ɲɛbilakiimɛni	!Preevaluation
ɲɛgɛnw	!Frises
ɲɛ – kɔ	!Devant – après
ɲɛfɛ- kɔfɛ	!Devant – derrière
ɲɔgɔn ɔɛ	!Symétrie
ɲɔgɔnnadilan	!Symétrie complexes

S

Sanfɛ – duguma	!Haut – bas
Sanfɛla – dugumana	!En haut – en bas
Sɛrɛsigi, saradali, kulusigi	!Classement
Sigiɲɔgɔnkɔ dɔnni	!Notion de mise en ordre
Sigiyɔrɔdanfara	!Topologie
Sokɛɲɛ	!La symétrie
Sokɛɲɛ tomi	!La symétrie centrale
Sokɛɲɛ bɔlɔ	!La symétrie axiale
Sɔrɔcogo	!Formation
Sumanimabɛn	!Système métrique

T

Tiginajirali	!Semi abstraction
Tiirici	!Tracé de traits
Tinekuli	!Glissement

W

Wale minnu be na ni dɔboli ye	! Situations relatives à la soustraction
Wale minnu be na ni kafoli ye	! Situations relatives à l'addition
Waleyali	! Manipulation,
Waleyali ni minɛnw ye	! Concrétisation
Warakali	! Décomposition
Wari donni	! Monnaie (manipulation)
Wolomali (wolomani)	! Tri
Wolomani k'a da cogoya kundama ani ne kan	! Tris selon la forme la taille, la couleur
Wolomani k'a da mankutu fila kan	! Tris selon deux propriétés
Wolomani k'a da suguya kan	! Tris selon la nature

Sinsin kera gafe minnu kan

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