

yaateeri safoo

Mandinka

rama niŋ siidi

saŋ foloo

**MANUEL
D'ESSAI**



**MINISTÈRE DE
L'ÉDUCATION**



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MINISTÈRE DE
L'ÉDUCATION



Maquette et Infographie : François DIOH

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Avenue Cheikh Anta Diop x Rue Pyrotechnie Stèle Mermoz

B.P. : 581 - Tél.: 864 05 44 - Fax. 864 13 52

E-mail : eenas@sentoo.sn - DAKAR, Sénégal

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Sous l'égide de l'INÉADE
et de la DPLN

Avant-propos

Ce manuel de mathématiques se place dans la dynamique d'introduction des langues nationales dans notre système éducatif.

S'inscrivant dans une logique d'innovations majeures, il ne saurait déroger à la conception nouvelle de la mathématique qui, partant d'**opérations prématiques** spécifiques qui imposent différentes approches notamment ensemblistes, n'en intègre pas moins d'autres activités complémentaires propres à former l'esprit scientifique que sont : les **activités numériques**, de **mesure**, de **géométrie** et enfin celles de **résolution de problèmes**.

C'est fidèle à cet esprit que le manuel dans son organisation générale, démontre la volonté pédagogique d'entraîner l'enfant à l'acquisition et à l'exploitation de capacités et finalement de compétences mathématiques qui lui seront nécessaires dans son vécu.

Cette volonté s'illustre à nouveau dans une démarche, qui part de l'observation active (**naa seetlu**), la consolidation des acquisitions à travers des essais (**naa jéem**), pour aboutir à la programmation d'exercices pratiques diversifiés (**naa tàggatu**).

Par cette démarche, le manuel préparera l'enfant à exploiter toutes ses potentialités et possibilités face aux multiples situations mathématiques qu'il aura à résoudre ; en même temps, il lui permet d'enrichir son vocabulaire scientifique dans sa langue maternelle. Il reviendra alors au maître, ou à l'encadreur, à partir des activités non seulement de le guider, de le soutenir, mais surtout de l'aider à trouver des références dans son vécu, et préparer les acquisitions futures.

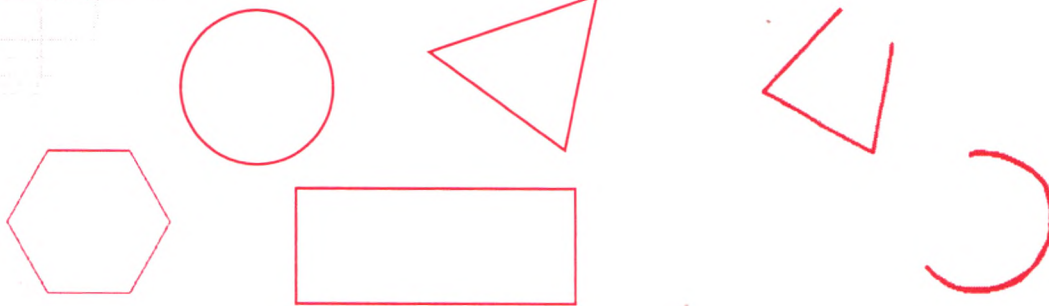
C'est en cela que nous pensons que la manuel sera d'un grand apport dans la formation de l'esprit mathématique de l'apprenant et contribuera sans aucun doute à la promotion des langues nationales.

Cet ouvrage de mathématiques est à l'essai ; aussi, souhaiterions nous que chaque utilisateur dans la réalité de sa pratique et compte tenu de son expérience, puisse nous faire part de ses remarques et suggestions, pour son amélioration.

L'éditeur

nuunuu sorondigo nig nuunuu yelerigo

nga korosiroo ke



• ñig nuunuolu soronta le

• ñig nuunuolu yeleta le

nga ñinindiroo ke

• nuunuolu yitandi minnu soronta

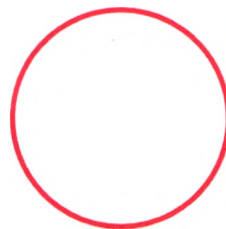
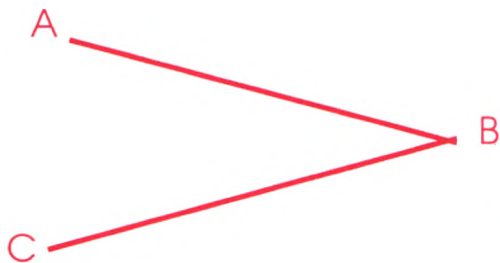
• nuunuolu yitandi minnu yeleta



nga nikindiroo ke

• ñig nuunuo ABC soronta le bag fo a mag sorog

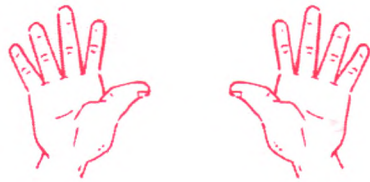
• a fo haa warag hani fo ñig nuunuo be yelerig ne bag



bulubaa

maraa

.....n̄ga korosiroo ke



.....n̄ga ñinindiroo ke

- n̄ga jooragolu yitandi minnu be siidi bulubaa la



- n̄ga rama maraa sijo yitandi



.....n̄ga nikindiroo ke

- n̄ga jooragolu too fo minnu be nna nafii maraa la



- ñij suuteerilaj ☒ ke maraa ñaa duuma



- ñij suuteerilaj ☒ ke bulubaa tuloo duuma



- n̄ga a fo mig siita nbulubaa la

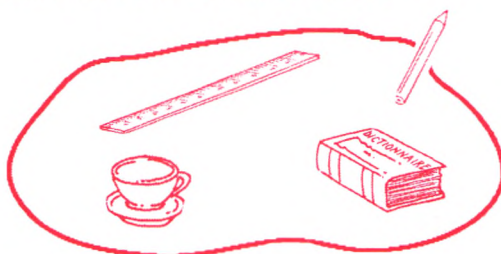
konoto banta santo

..... nga korosiroo ke



..... nga ñinindiroo ke

- nga nataaloolu yitandi minnu be muruo kono

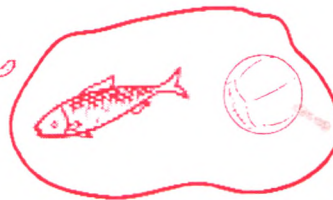


..... nga nikindiroo ke

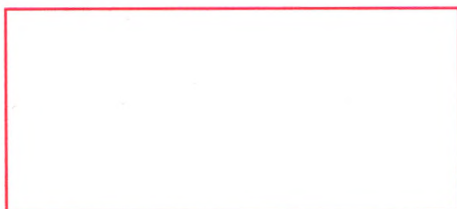
- nga a fo mig be sinsigo kaj anig mig be a kono



- nga a fo mig be muruo banta la



- nga nataaloolu boyi ñig nuunuo kono minnu mu balago nig neo ti



- nga nataaloolu dunndi muruo kono



jaŋamaa

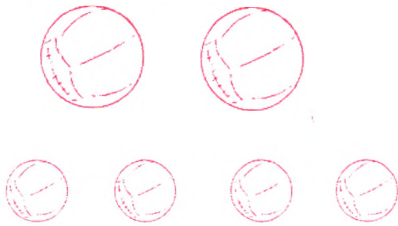
sutumaa

nga korosiroo ke

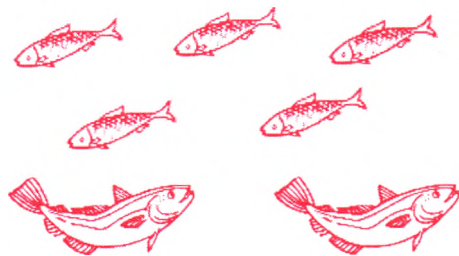


nga ñinindiroo ke

- nga balaj baalu yitandi

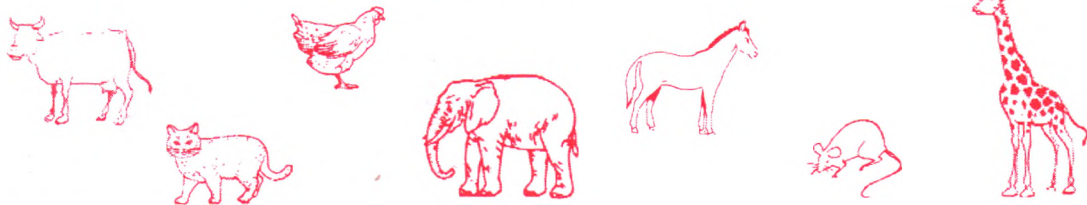


- nga ñee mesegolu yitandi

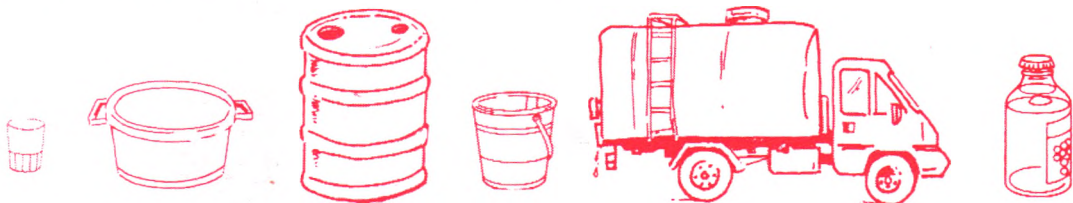


nga nikindiroo ke

- nga beeyaj digolu nataaloolu too dii



- nga beeyaj baalu nataaloolu too dii

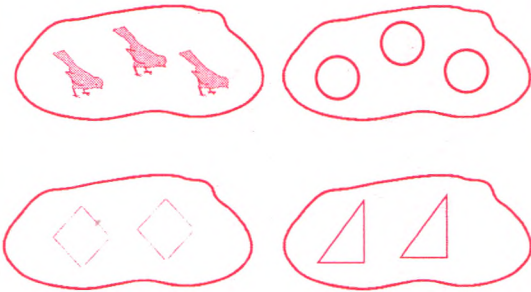


- nga koobaa jooraj baalu nij jooraj mesegolu too dii

laa

loo

nga korosiroo ke

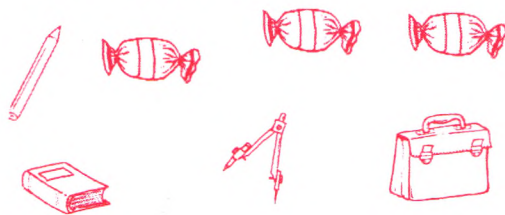


nga ñinindiroo ke

- nga ñinoolu bula sorog kiligo kono



- lekooli karandigo la jooragolu kafu ñog ma bag



nga nikindiroo ke

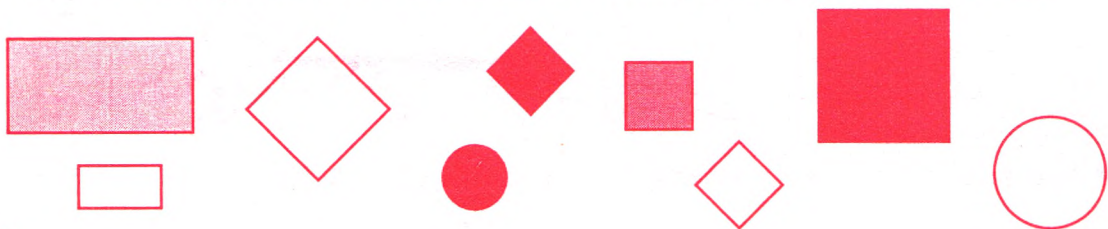
- fegolu yita minnu mulunña mu kiligo ti



- i bulukondigo taa i ye fegolu nataaloo muruu minnu mulunña mu kilig ti



- i bulukondigo taa i ye nataaloolu kaduu, minnu safeeña ka mulug



ñaato kooma

nga korosiroo ke



siidi be rama kooma



saalifu be rama ñaato

nga ñinindiroo ke

- nga a fo mij be «musee» salla ñaatiligo to

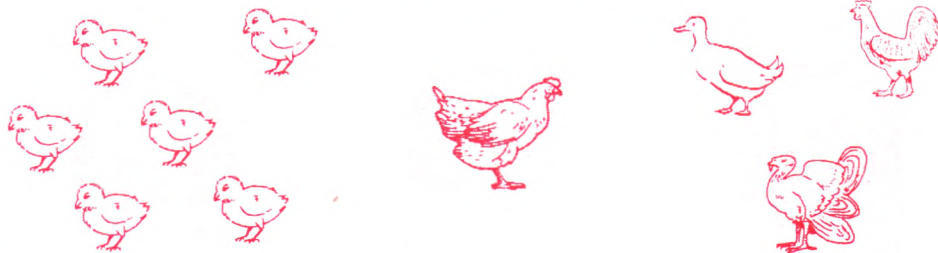


- nga a fo mij be ñij bugo kooma



nga nikindiroo ke

- nga a fo mij be ñij siisee baa ñaato anij a kooma



- fegeo nataaloo boyi i la walaa to, mij be bugo ñaato



kaañandiño

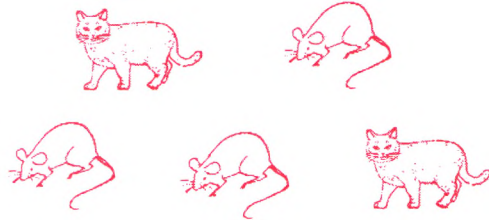
tambiriño

dooyaariño

.....nğa korosiroo ke



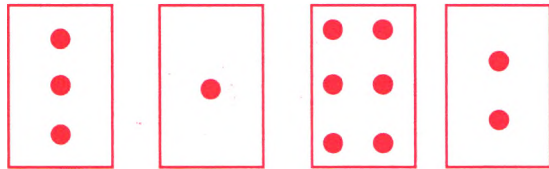
banaanoolu niğ nanaasoolu
kaañanta



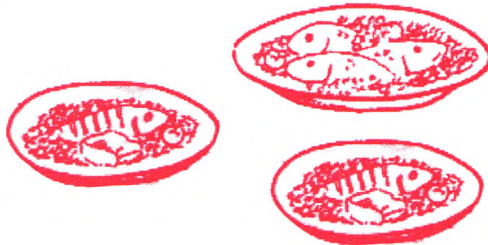
ñinoolu le tamlita ñankumoolu ti
(siyaata)

.....nğa ñinindiroo ke

- bugo yitandi miğ na tomboo siyaata



- nğa palaatoo yitandi minnu ñee kaañanta

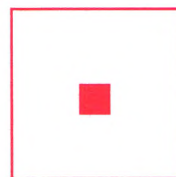
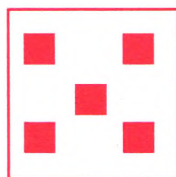


.....nğa nikindiroo ke

- sinsiño yita kiloo□ dooyaata miğ kono



- nğa ñiğ sorogolu tomboolu kaañandi nna walaa to



seyinkajo

- nuunuu sorondigo boyi, anig yelerigo
- ñaa korosi, i ye a fo, fo bulubaa ñaa loj bag, fo maraa ñaa loj ?



- ñig moo fuloolu korosi i ye a fo kilig wo kilig be ñaanig



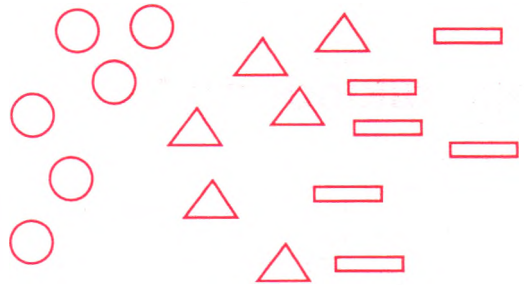
- a fo mig be sajo ñaatiligo la anig a kooma



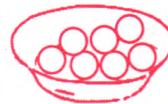
- ñinoo mig be keerajo kono anig ñinoo mig be banta anig mig be keerajo kaŋ yitandi



- ñig nataaloolu korosi : minnu safeeña ka mulug i ye wolu yita i bulukondigo la



- a fo keeraj ñolu jumaa le la kee fegolu kaañanta, jumaa le ta tambita (siyaata) bee ti, anig jumaa le taa dooyaata



yirikoolu ka bo 1 fo 3

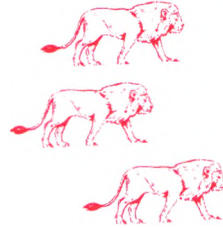
nga korosiroo ke



moo kilig



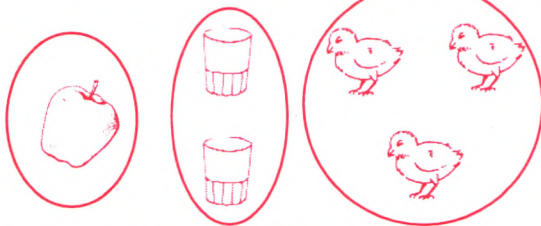
ñoobooti fula



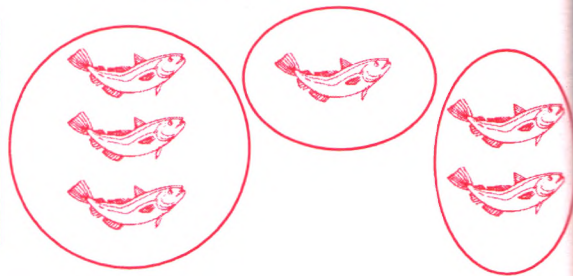
jata saba

nga ñinindiroo ke

- nga feƷ fula sorogo yitandi

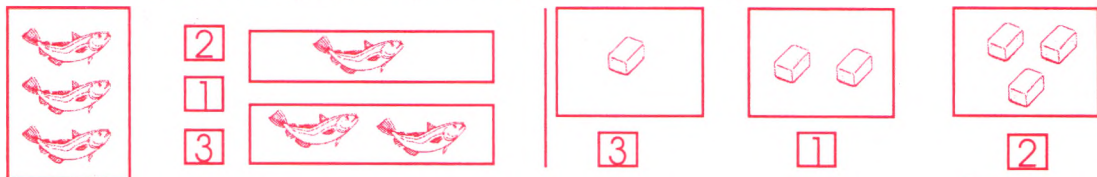


- nga feƷ saba sorogo yitandi



nga nikindiroo ke

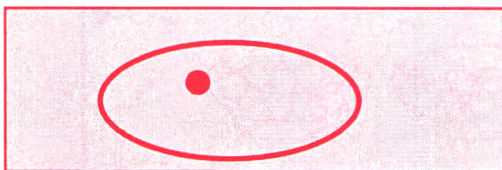
- nga ñiƷ nataaloolu yaatee yirikoolu safee i duuma



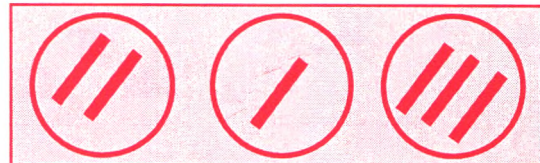
- nga ñiƷ nataaloolu yaatee yirikoolu safee ñiƷ nuunuo 1 kono



- nga ñiƷ timmandi tombu 3 to



- nga sorogo yitandi miƷ ye feƷ fula soto



jaɣamaa sutumaa

nga korosiroo ke



nga ñinindiroo ke

- ñij safeerilaɣ jaɣo ñij safeerilaɣ sutuɣo bo ñoɣ to



nga nikindiroo ke

- ñij suuteerilaɣo ☒ ke sila jaɣo bala, i ye naa ☒, nga wo ke sila sutuɣo bala



- nga a fo sondeli jumaa le janayaata, anij miɣ sutuyaata

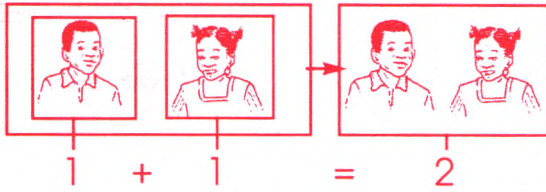


- nga a fo ñij julu kese fuloolu teemaa, min jaɣayaata, anij miɣ sutuyaata

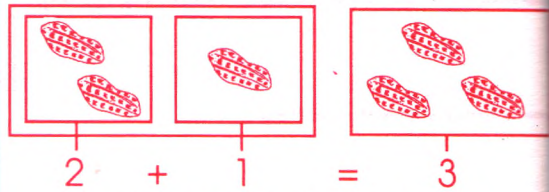
yirikoolu ka bo 1 fo 3

kafuñoomoo ⊕ niŋ tembeta ⊖ taamansee

nga korosiroo ke



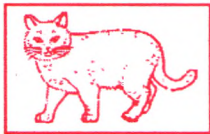
nga kilig kafu kilig ma, tembeta fula



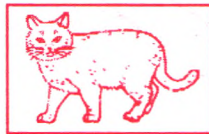
fula nga kilig kafu a ma
tembeta saba

nga ñinindiroo ke

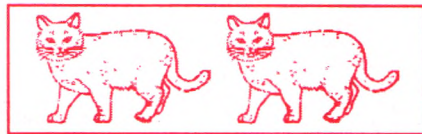
- ñiŋ nataaloolu yaatee yirikoolu safee kuu i duuma



1

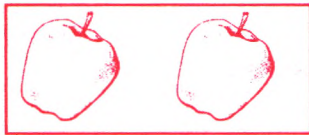


1



2

- nga nataali wo nataali yaatee yirikoo safee a duuma



nga nikindiroo ke

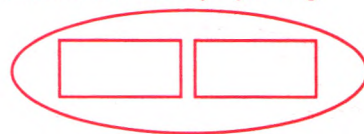
- nataaloolu boyi foloo minnu niŋ ñiŋ yirikoolu tembeta, fulanjanjo ñiŋ tuutuolu yaate yirikoo safee i duuma



1



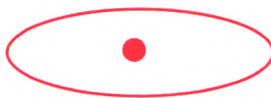
1



2



2



1



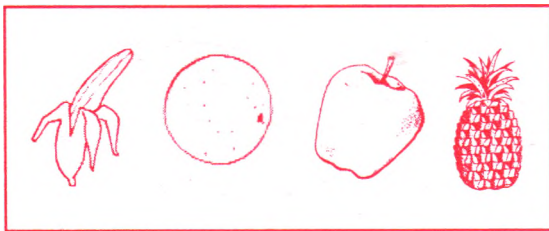
3

- **tafoo** : siidi ye banaani kilig soto, rama naata a so kilig na.
siidi la banaanolu bee mu jalu le la

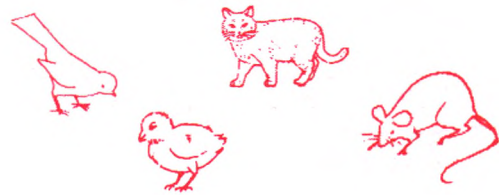
minnu katata

minnu janfata

nga korosiroo ke



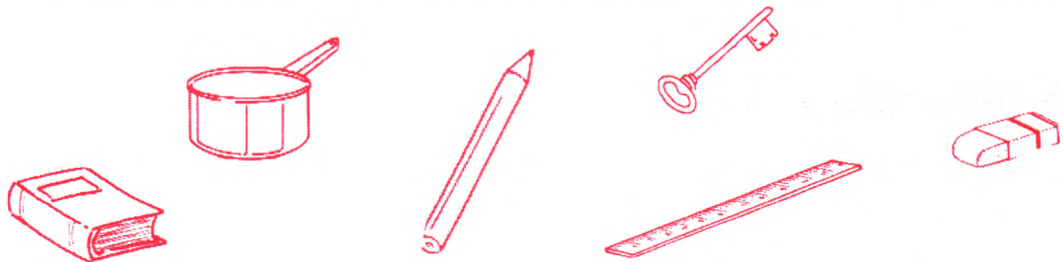
ñilu le mu katata ñog na



ñij doolu le janfata ñog na

nga ñinindiroo ke

- nga jooragolu suutee minnu katata karago la, a nij minnu janfata a la

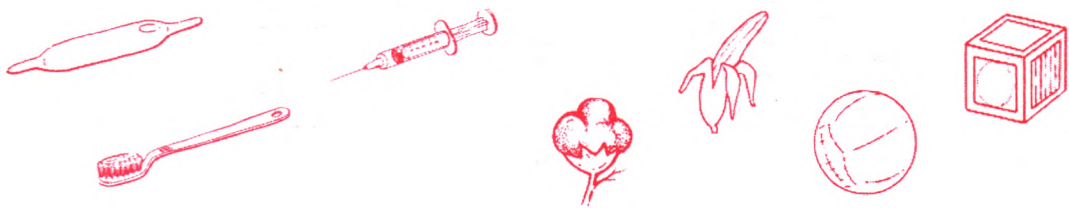


nga nikindiroo ke

- nga suufoolu yitandi, minnu katata kugo la



- nga suuteerilago mij ko ke fegolu bala minnu katata jaaralla la



- nga jooragolu too fo minnu katata miniisee la

yirikoolu ka bo 1 fo 3 siyaata > dooyaata <

nga korosiroo ke



saba le siyaata kilig ti

$$3 > 1$$



fula le dooyaata 3 ti

$$2 < 3$$



saba le siyaata fula ti

$$3 > 2$$

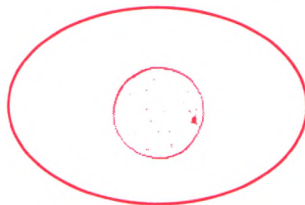
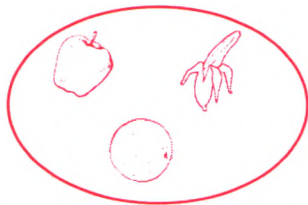


kilig ne dooyaata 2 ti

$$1 < 2$$

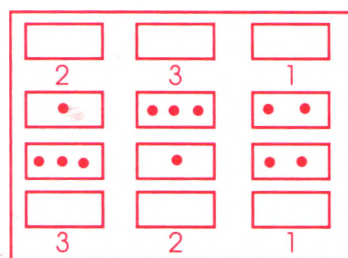
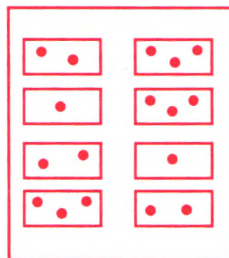
nga ñinindiroo ke

- a fo sorogo mig fegolu siyaata anig mig fegolu doyaata



nga nikindiroo ke

- nga ñig tomboolu yaatee yirikoolu safee tomboolu minnu, nij yaatee benta nga naa nuunuo > waraj < boyi suundiij tombomaalu teema



- nga a yita minnu safeeta kunke

$$2 > 3 ; 1 < 2 ; 3 < 1 ; 2 = 1 + 1 ; 2 + 1 > 1$$

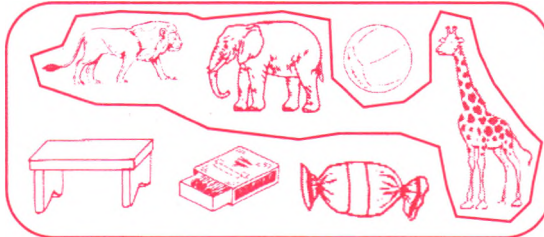
laa talaa

nga korosiroo ke

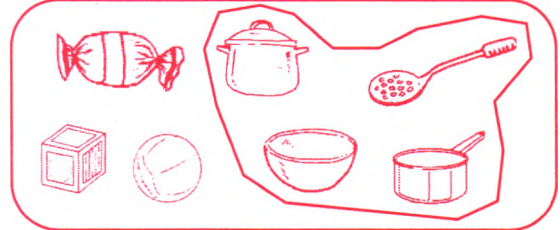


nga ñinindiroo ke

- nga ñig beeyagolu laa talaa fo bag



- nga laa talaa kilig muu mulunña kilig na

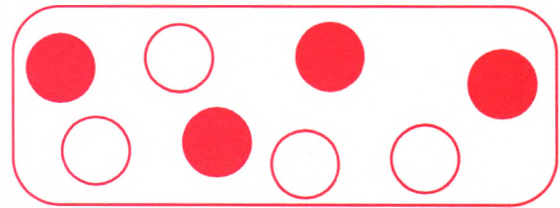


nga nikindiroo ke

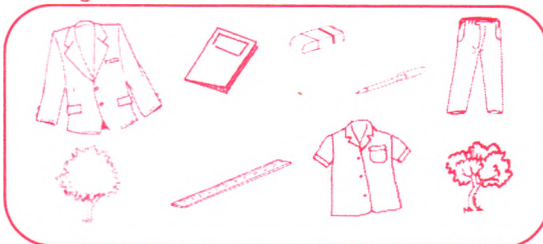
- nga laa talaa kilig muruo sorog nga a muu mulunña kilig na



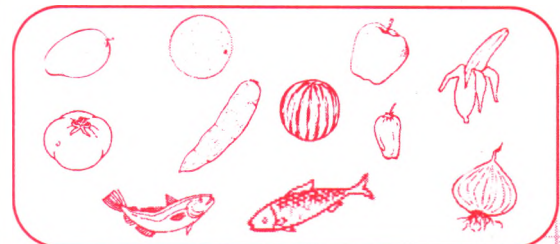
- nga balag figolu sorog muruu kilig kono



- nga laa talaa la feyolu ka ñog kag minnu se taa noo

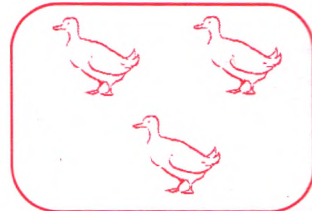
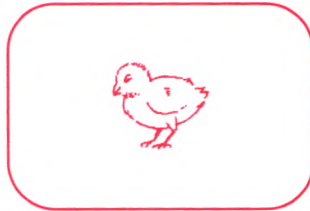
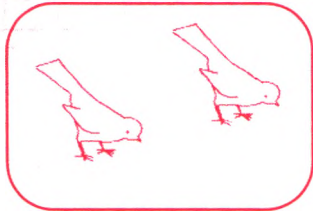


- ngatamaatee laa talaa muu mulunña kilig na



seyinkajo

- ñij nataalolu korosi, i ye i yaateo temboo safee i la walaa to waranteg i la karinee to



- ñij feɗolu yaateo temboo safee. kafundiroo suuteerilago fanag safee i teema



- suuteeragolu tomboɗ ñinnu kono (< = >) i ye i ke tomboolu nooto

1... 2 ;

3 ... 1

2... 1 ;

2 ... 1

2 + 1 . 3

1 + 1 + 1... 3

1 + 1 ... 3

1 + 2... 2

- feɗolu kafu ñooma minnu mu kiligolu ti



- koobaa kono jooragolu too fo anig minnu mu karantaa jooragolu ti.

- ñij yaateeroo timmandi

1, 1, 1,

mij jagayaata mij sutuyaata

nga korosiroo ke



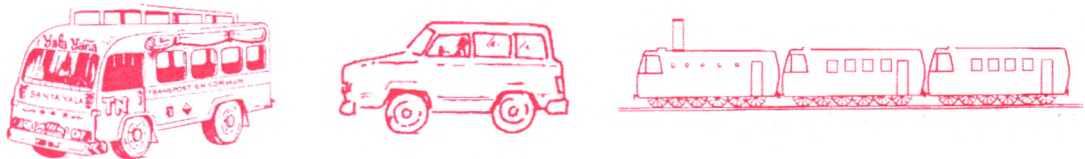
nga ñinindiroo ke

- nga juloo suutee mij jagayaata



nga nikindiroo ke

- nga suuteerago mij be ko ☒ safee fejo koto mij sutuyaata



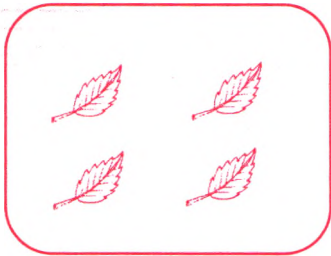
- nga daafego too fo mij kago jagayaata



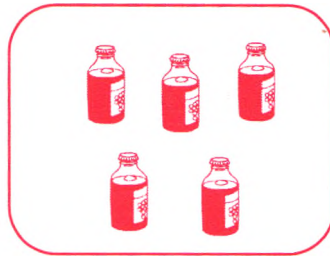
- nga a fo faloo nij sago nij ñankumoo mij tuloo jagayaata ;
anij mij tuloo sutuyaata
- nga nuunuo boyi-walaa to mij jagayaata ñij ti anij mij sutuyaata
a ti

yirikoolu ka bo 4 fo 6

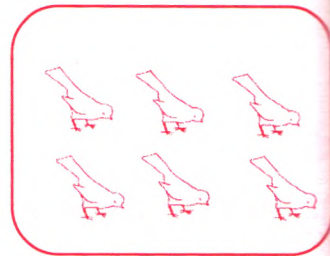
nga korosiroo ke



jamba naani



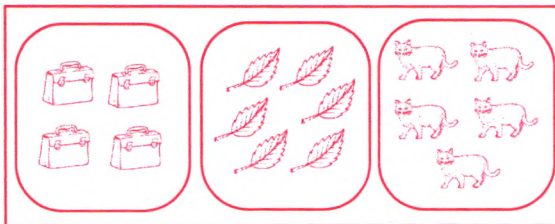
kaba luulu



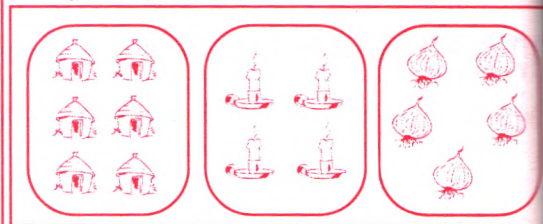
kunu wooro

nga ñinindiroo ke

- nga ñij nuunuo ke nataaloo bala mig ye fej wooro soto

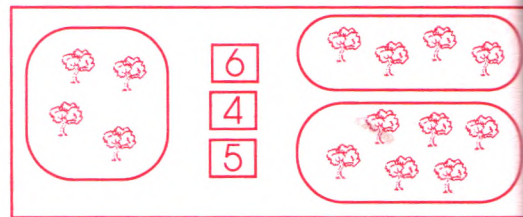
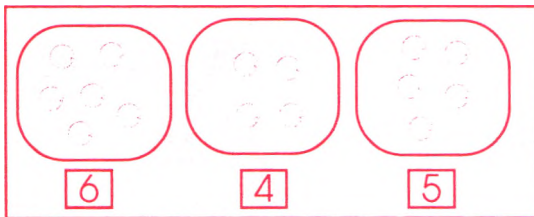


- nga ñij nataaloo too dii bag mig ye fej naani soto

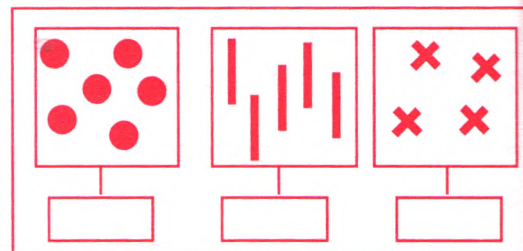
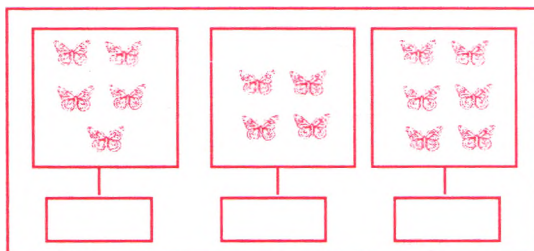


nga nikindiroo ke

- nga fejolu kafuñoomoo yaatee safee nataaloolu bala

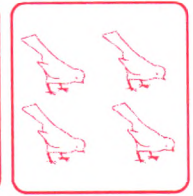
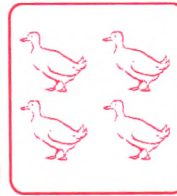
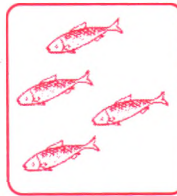
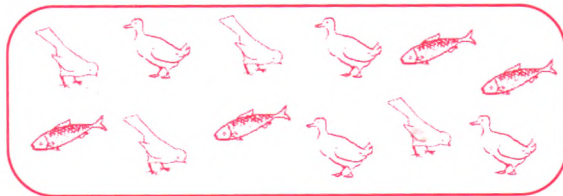


- nga fejolu yaatee safee minnu be nataaloolu kono



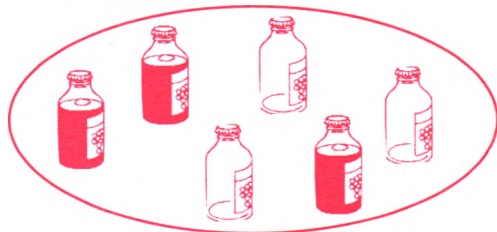
Iaa (baalu)

nga korosiroo ke

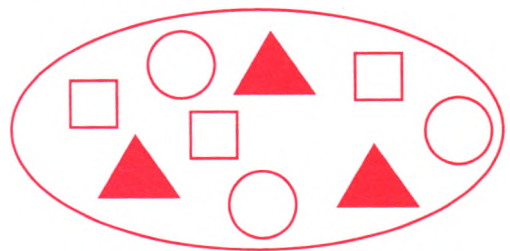


nga ñinindiroo ke

- nga kaboolu talaa muruu minnu mulunta

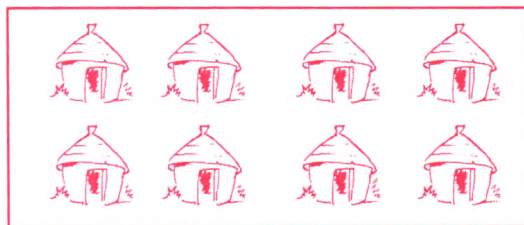


- nga fegolu yaatee safee minnu safeeña mu kilij ti

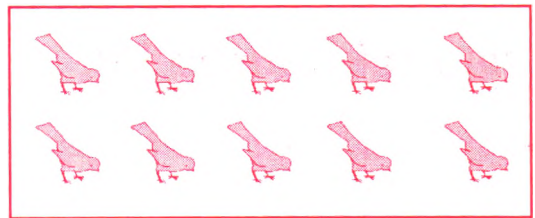


nga nikindiroo ke

- nga ñij fegolu talaa, talaa naani ti



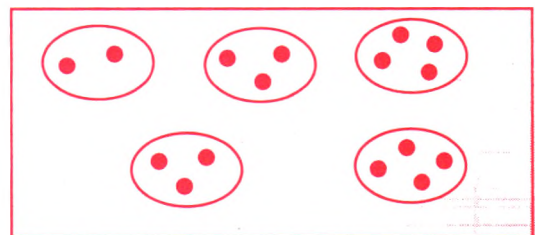
- nga ñij fegolu talaa, talaa saba ti



- nga ñij timmandi a ye ke talaa naani ti

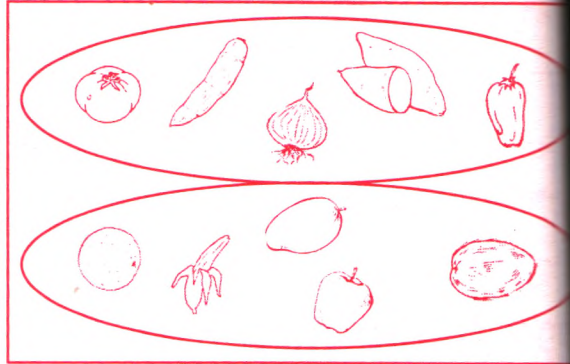
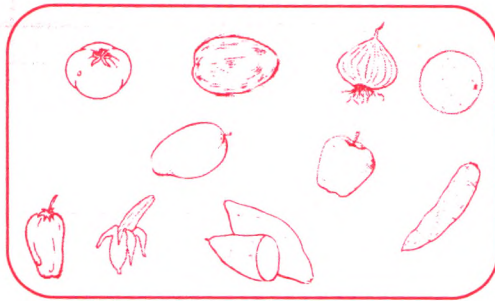


- nig ñij fegolu kafuñooma fo nga talaa saba soto



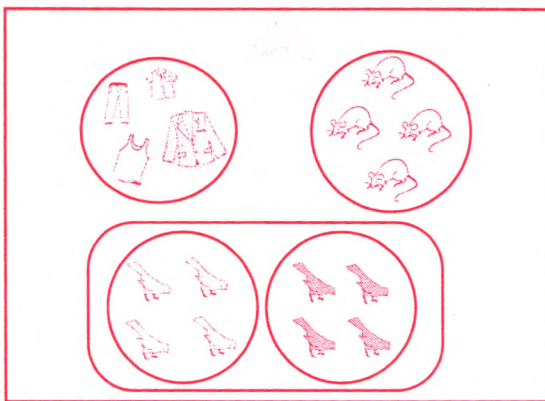
laa baa fuloolu kafuñoomoo

nga korosiroo ke

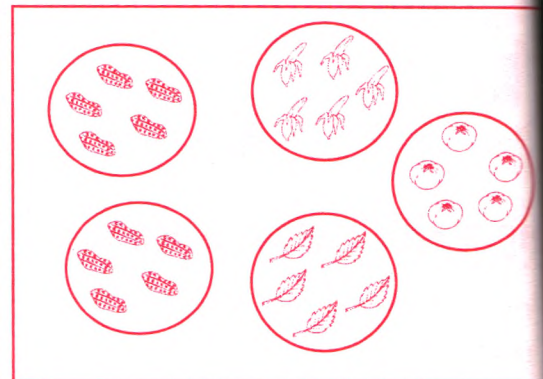


nga ñinindiroo ke

- nga tiya laa kafuñooma

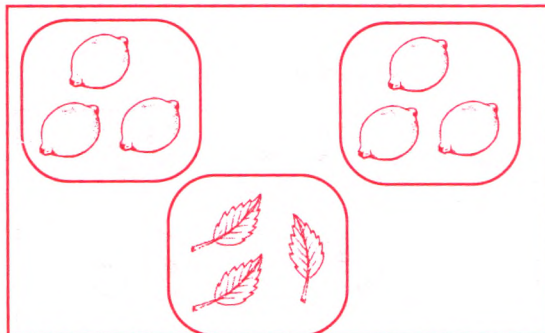


- nga kunu laa muu

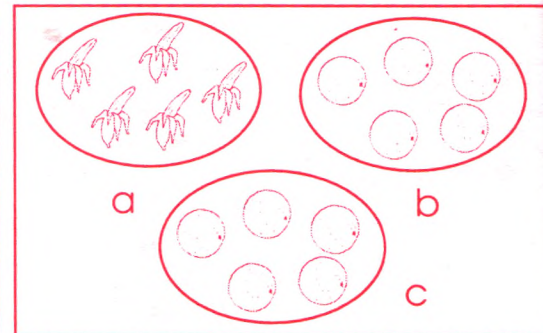


nga nikindiroo ke

- nga ñij laalu kafuñooma, minnu si taa noo

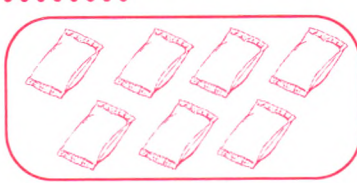


- nga ñij taalu muu mulunñaa kilig na laalu minnu si taa noo

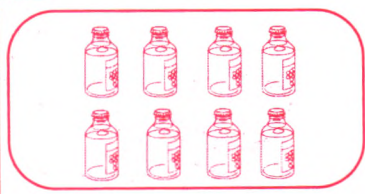


yirikoolu ka bo 7 fo 9

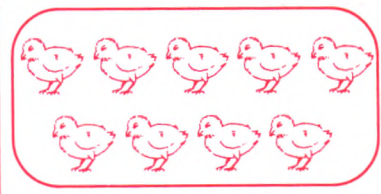
nga korosiroo ke



booto worowula



kaba seyi



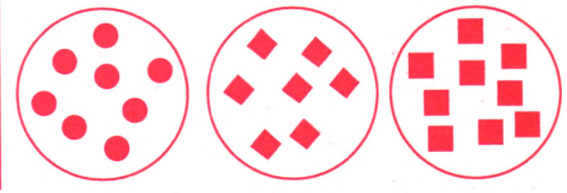
siiseendij kononto

nga ñinindiroo ke

- nig nuunuo ke laa bala mig ye feg worowula soto



- nga laa muu mig ye feg worowula soto



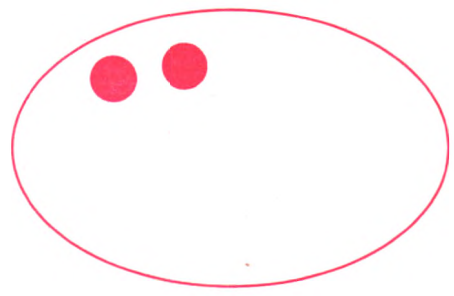
1 2 3

nga nikindiroo ke

- nga laa yaatee safee kuu a bala

<p>a 9</p> <p>b 7</p> <p>c 8</p>	<p>d 9</p> <p>e 7</p> <p>f 8</p>
-------------------------------------	-------------------------------------

- nga ñinnu timmandi fo 9

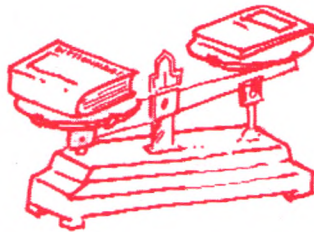


- nga ñij fegolu yaatee yirikoo safee waraj ka tomboo yaatee nuunuu jee

 <input type="text"/>	 <input type="text"/>	 <input type="text"/>
5	3	0

kuliyaa feeyaa

.....n̄ga korosiroo ke



.....n̄ga ñinindiroo ke

- n̄ga kulimaalu niŋ feemalu bo ñoŋ to



.....n̄ga nikindiroo ke

- n̄ga suuteerilago miŋ be ko safee feŋ feemaa koto



- n̄ga a fo jooran̄ jumaa ñoolu le kuliyaaata, a niŋ minnu feeyaaata



- ñiŋ nataaloolu kono miŋ-kuliyaaata, n̄ga a too safee nna walaa to, miŋ fanan̄ feeyaaata, n̄ga a too safee walaa kaŋ



weloo



motoo



wotoo

seyinkajo

- ñij nuunuu juloolu kono, kilig taa miɗ janyayaata doolu ti, i ye too dii a la anig i ye fulanɗajo miɗ sutuyaa doolu ti, i ye too dii a la

A _____

B _____ C _____

D _____

- ñij feɗolu la nataaloo yirikoolu safee

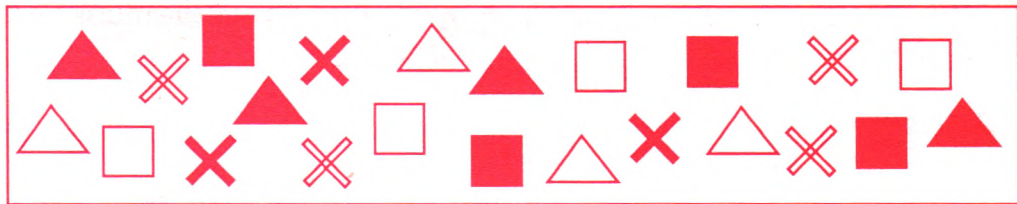


- ñij yirikoolu safee loo ñonkaɗ ka foloo waramaa la, miɗ be a nooma ka ka labaj domondiɗo la : 6 - 4 - 5 - 3

- ñij laa ke talaa saba ti



- ñij feɗolu laalu ke ñonkaɗ minnu si taa noo



- niɗ yirikoolu safee loo ñonkaɗ ka foloo miɗ dooyaata la, ka sele, ka taa labaj waramaa la

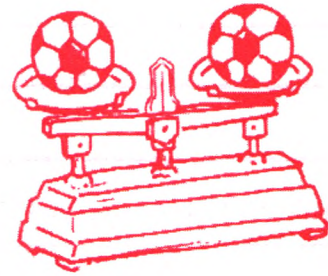
8 3 2 5 7 4 6

- nataali kilig yita miɗ feeyaa



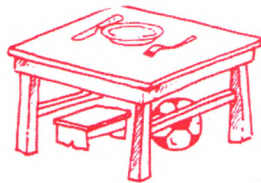
santo duuma temberig

nga korosiroo ke



nga ñinindiroo ke

- nga fegolu too dii minnu be ñig taabuloo duuma



- nga fegolu too dii minnu be ñig siirago kaj



nga nikindiroo ke

- nga ñig nuunuo ☒ ke kunoo bala mig be yiroo duuma



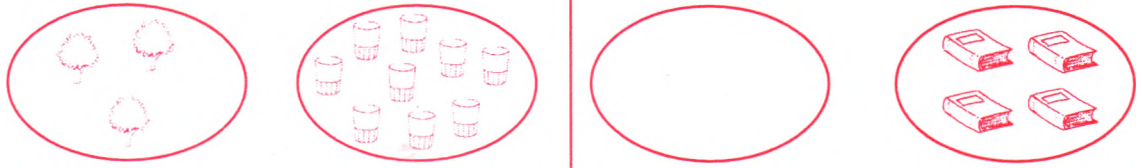
- nga kunoo muu netemunkoo la mig be loorig yiri santo



- nna nuunu julu fula boyi siirago duuma mig be n maraa la anig nuunuu julu kilig siirago santo mig be n bulubaa la

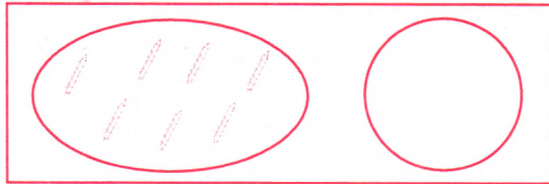
yirika hanifeg

nga korosiroo ke

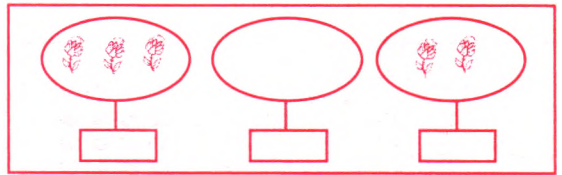


nga ñinindiroo ke

- nga ñij nuunuo ke laa bala mij mag feg soto

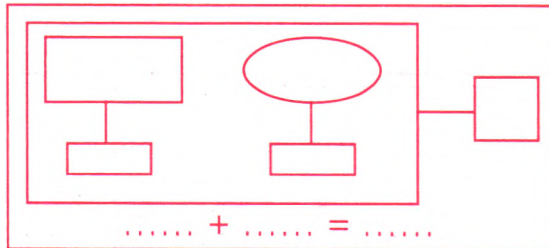


- nga ñij fegolu yaatee yirikoo safee

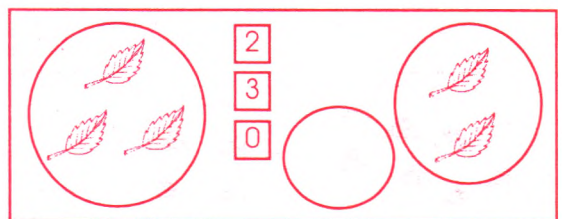


nga nikindiroo ke

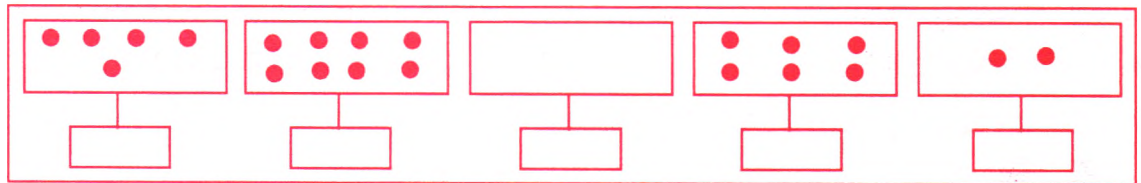
- nga ñij yaatee safee, nna naa i timmandi



- nga ñij laalu yaatee safee i bala



- nga i yaatee a safee nga walaa to, yaate mij sotota



- nga a safee, nga a bulandi

$$5 + 0 =$$

$$6 + 0 =$$

$$4 + 3 =$$

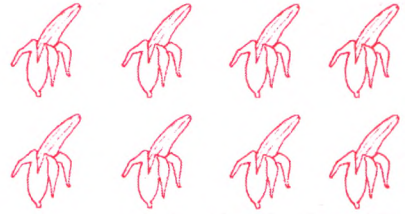
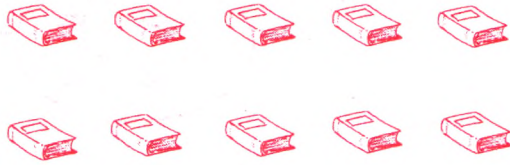
$$4 + 5 =$$

$$4 + 2 =$$

$$7 + 0 =$$

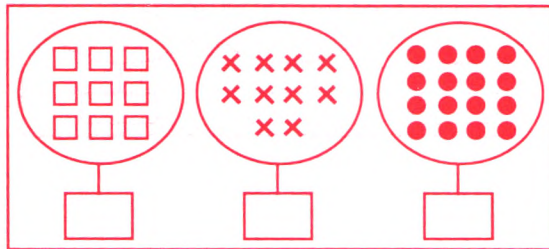
taɔ yirikoo

nga korosiroo ke

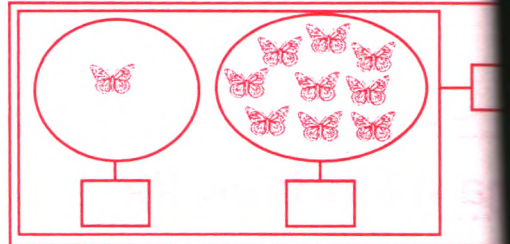


nga ñinindiroo ke

- nga taɔ safee taɔ laa koto

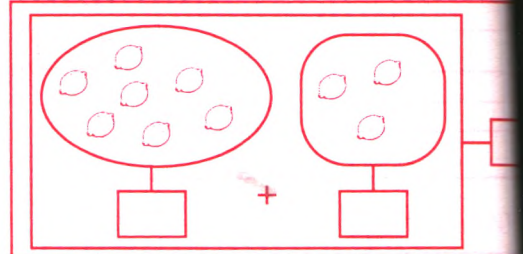
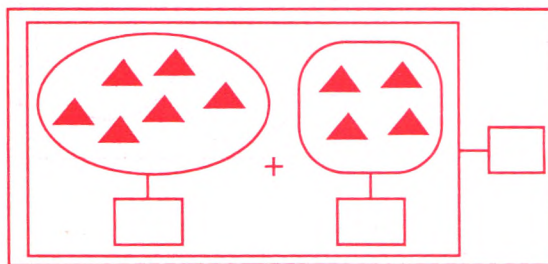


- nga feɔlu laa yaatee safee nga i timmandi

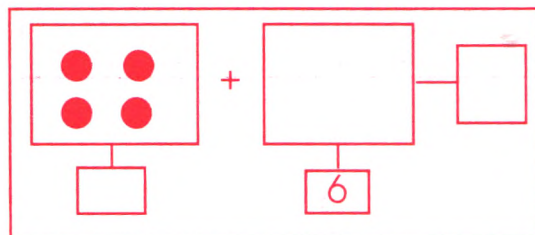


nga nikindiroo ke

- nga feɔlu laa yaatee safee nga i timmandi



- i timmandi fo 10



- nga a safee, nga a bulandi

$$10 = 6 + \dots$$

$$10 = 3 + \dots$$

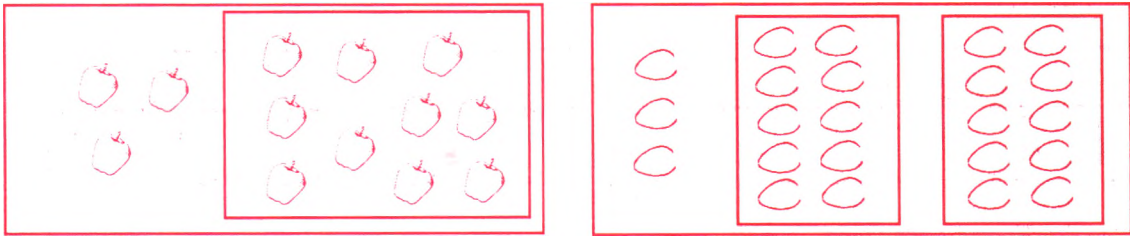
$$5 + 5 = \dots$$

$$8 + \dots = 10$$

$$2 + \dots = 10$$

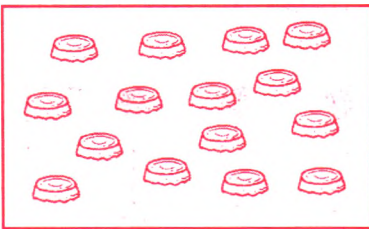
tagolu

nga korosiroo ke

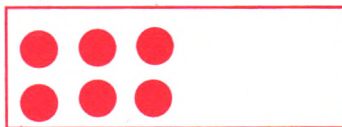


nga ñinindiroo ke

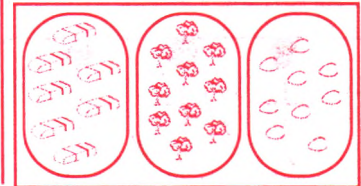
- nga tag laa muruu



- nga tomboolu timmandi tago to nna walaa to

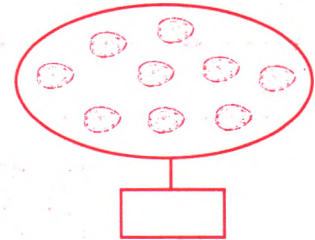
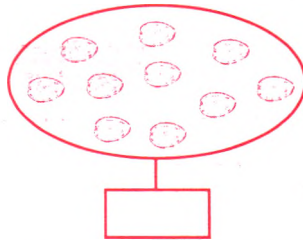
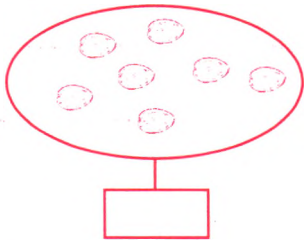


- nga nataaloo yitandi mig ye tago soto



nga nikindiroo ke

- nga nataali wo nataali fejolu yaatee safee nna walaa to



- nga ñig yaateeroo timmandi nna walaa to

$$10 = 5 + \dots$$

$$10 = \dots + 6$$

$$\text{tag kilig} = 1 + \dots$$

$$\text{tag kilig} = 2 + \dots$$

$$\text{tag kilig} = 8 + \dots$$

$$\text{tag kilig} = 6 + \dots$$

$$7 + \dots = \text{tag kilig}$$

$$9 + \dots = \text{tag kilig}$$

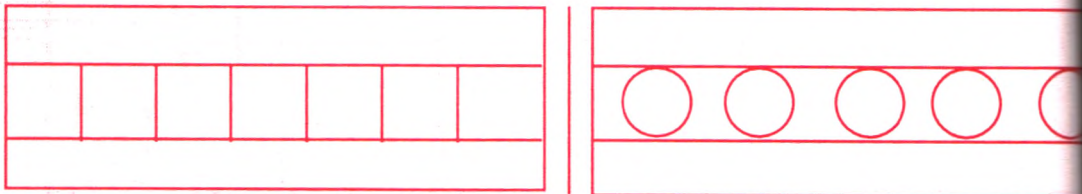
$$3 = \dots = \text{tag kilig}$$

$$10 + \dots = \text{tag kilig}$$

- **tafoo** : siidi ye mangu dij tag soto, a ye rama so jee mangu dij naani la. jalu le tuta a bulu ?

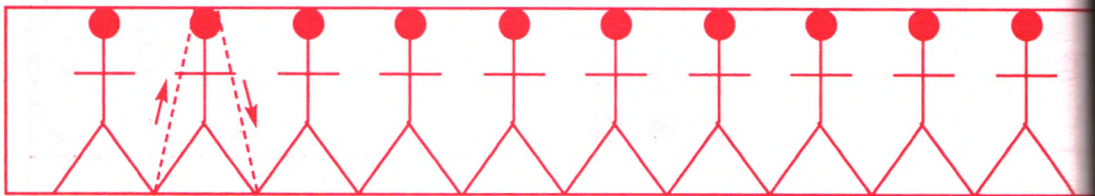
jinkaɗ ñan

nga korosiroo ke



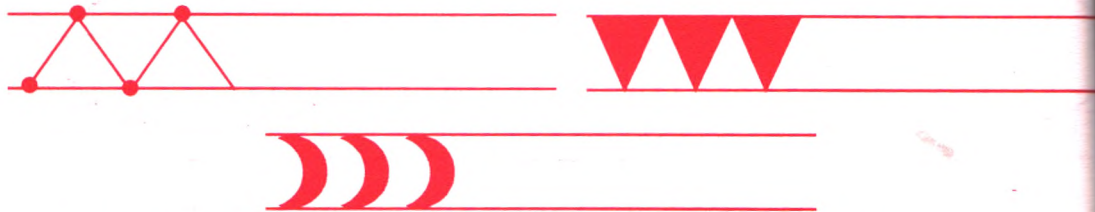
nga ñinindiroo ke

- nga nuunuo boyi nna walaa to, ka foloo, moo foloo maraa sijo to, ka ta a noomalankoo kugo to, ka taa wo ñaama fo labajo to

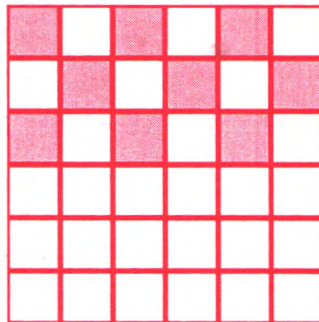


nga nikindiroo ke

- nga tuutuolu timmandi nna walaa to

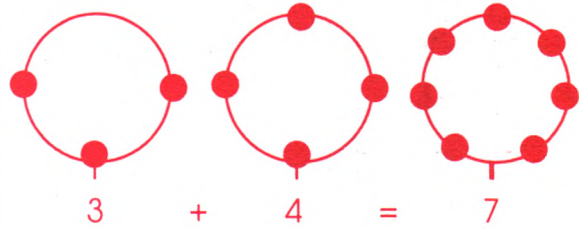
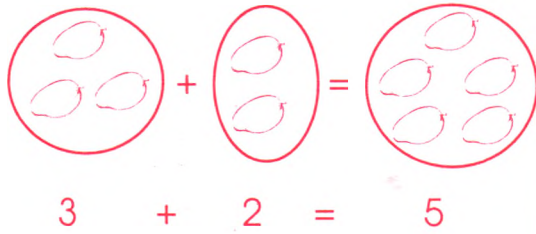


- ñij nataaloo labaj i ye naa ñij kordaá buɗolu muo labaj



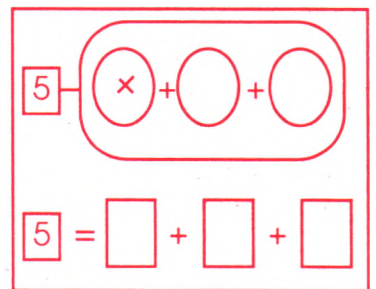
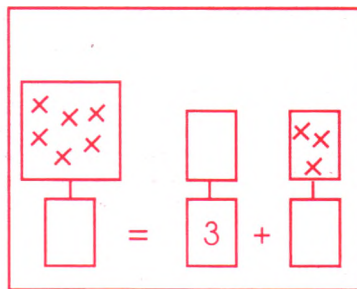
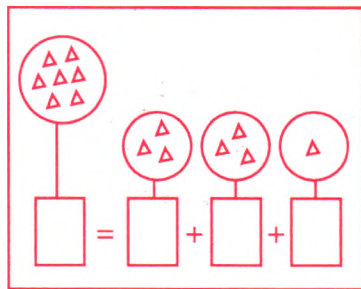
kafuroo feereo

nga korosiroo ke



nga ñinindiroo ke

- nga ñinnu timmandi



nga nikindiroo ke

- nga kafuroo fereo ñinig

$$3 + 6 =$$

$$1 + 8 =$$

$$2 + 5 =$$

$$3 + 2 =$$

$$6 + 5 =$$

$$3 + 6 =$$

$$1 + 8 =$$

$$2 + 5 =$$

$$3 + 2 =$$

$$6 + 5 =$$

- **tafo 1** : rama ye jooni kese 7 le soto, nna nafii ye a kafundaj jooni kese 3 la. jooni jalu le be a bulu saayig ?

- **tafo 2** : somonda nna nafii ye manku dij 6 le tombog koridaa kono. kabirig n mama moodu bota naj misiroo to a ye manku dij 3 tombog koridaa kono a naata a dii nafii la. saayig nna nafii ye manku dij jalu le soto a bee kafurigo ñog ma.

seyinkajo : yaateeroo : 10 fo 15

nya korosiroo ke



10 + 1
tag nig kilig
11



10 + 2
tag nig fula
12



10 + 3
tag nig saba
13

nya ñinindiroo ke

- nataaloolu kasabi, i ye i yaateo temboo safee walaa to, waranteg i la karinee kono



ñig yirikoolu safee i la walaa toi : 11 - 12 - 13 - 14 - 15

nya nikindiroo ke

- kasabiroo kilig-kilig ke, ka bo 10 to, fo 15, i ye wolu bee safee i la walaa to
- ñig yaateeri yirikoolu bulandi ñoo nooma, ka bo domandijolu to, ka taa jamaalu to : 14 - 11 - 7 - 15 - 9 - 12 - 12 - 8 - 10 - 13 - 6
- taamanseeroolu seyi ñig tomboolu nooto ; i ye wo taamanseelu taa ñinnu kono : (< = >) wo koolaa, i ye i safee i la walaa to

11 ... 13

13 ... 15

11 + 3 ... 14

8 + 7 ... 9 + 6

12 ... 10

9 ... 14 ... 15

9 + 4 ... 7 + 3

10 + 3 ... 7 + 4

- misaalifee** : saalifu ye tangali 9 le soto, nig a ye 6 kafu wo ma, wo le mu rama taa ti, nig i ye 3 bondi rama taa to, wo le be ke la siidi taa ti, woto rama nig siidi kilig wo kilig ye jali te soto ?

santo-santo duuma duuma

nga korosiroo ke



nga ñinindiroo ke

- nga a fo mij be firisideeroo kono, santo nga suuteerilaŋ ☒ ke feŋolu bala minnu be dunfeŋ maaboori dulaa duuma

nga nikindiroo ke

- nga yirootu taamanseeri ñiŋ suuteerilaŋ ☒ la, minnu be doolu kunto santo



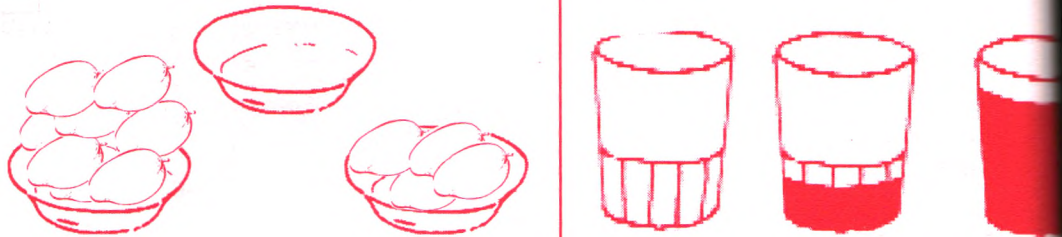
- nga kaboolu karabula minnu be doolu ye duuma la

- nga suuteerilaŋ x taa nga feŋolu yitandi minnu be duuma la



domandij jamaa tuus

nga korosiroo ke



nga ñinindiroo ke

- nga mangu jamaalu yaatee
- nga suuteerilaj ☒ ke sappoo balu mig na kunoo siiyaata

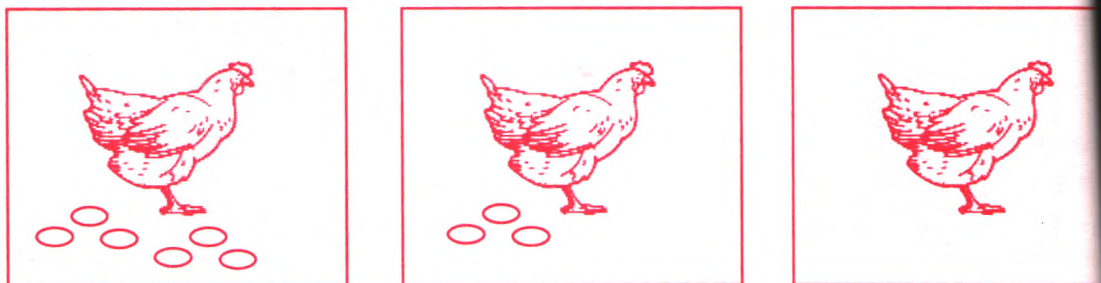


nga nikindiroo ke

- nga suuteeraj ☒ ke yiribuloo bala mig mag hani jamba kilij soto
- nga a siiseelu karabula ñaa wulego la, minnu la kiloo mag siiyaa. minnu ye domandij soto, nga wolu ke netemunkoo ti, siiseelu minnu mag soto ferej, nga wolu ke jambakeroo ti

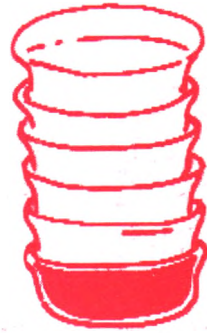


- nga feeree ke fo tomboolu nig i too si muluj. nig too mig be safeerig, tomboolu ye ke wo ñaama



santo duuma

nga korosiroo ke



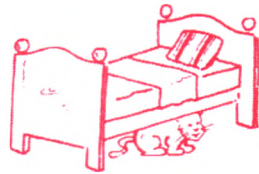
nga ñinindiroo ke

- nga a fo feno miŋ be ñiŋ wotoo santo santo



nga nikindiroo ke

- nga ñiŋ nuunuo ke feŋo bala miŋ be laaraŋo duuma duuma

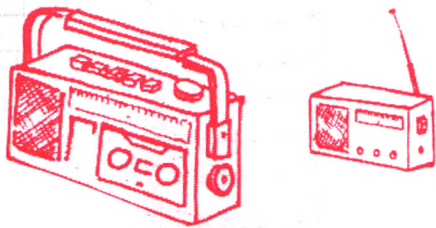


- nga i muu netemunkoo la minnu be juloo santo la minnu be nuunuu juloo duuma, duuma nga wo muu buluuriŋo la



mij kuliyaata mij feeyaata

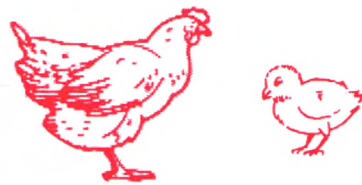
nga korosiroo ke



nga ñinindiroo ke

- nga kuliyaarigo yitandi

- nga feeyaarigo yitandi



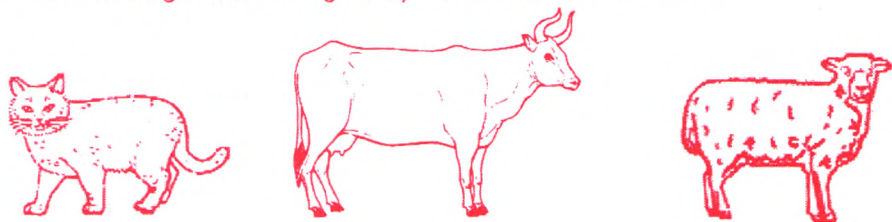
nga nikindiroo ke

- nga safoo yita mij kuliyaata

- nga ñij ☒ nuunuu fego bala mij feeyaata

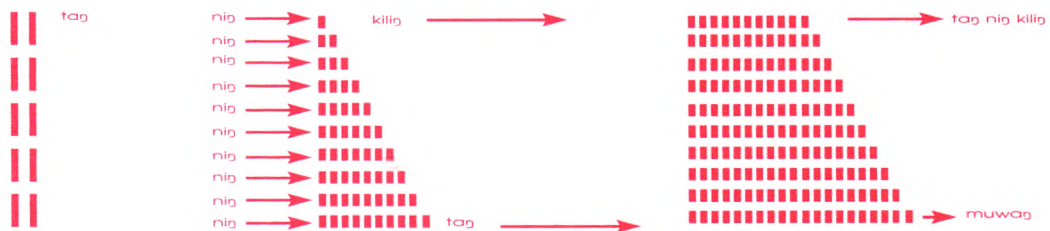


- ñij daafegolu kuliyaata ñog ti le. 1 safee daafego koto mij kuliyaata be ti ; i ye 2 safee daafego koto mij be waramaa nooma. labag 3 safee la daafego koto mij feeyaata i be ti : 1 - 2 - 3



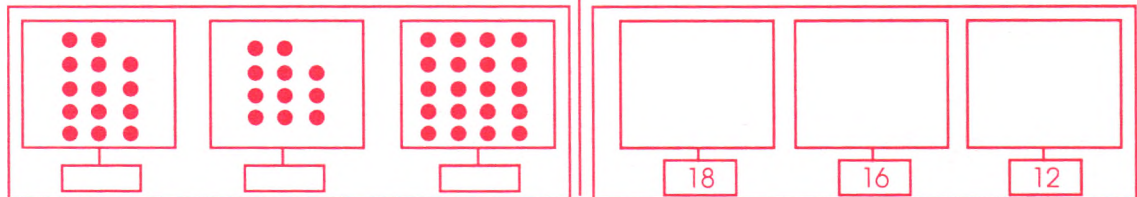
yaateeroolu ka bo 10 fo 20

nga korosiroo ke

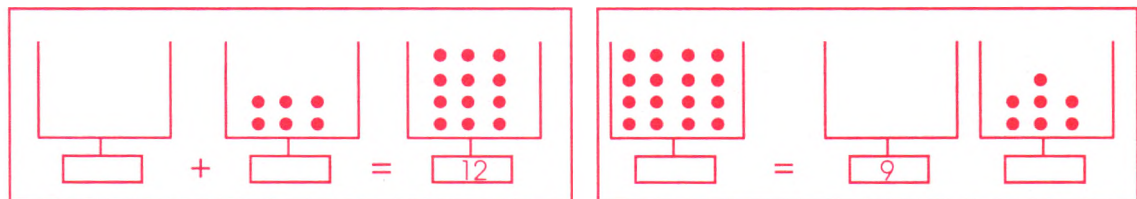


nga ninindiroo ke

- tombo kuru wo tombo kuru yaateo safee i la walaa to
- tomboolu boyi minnu yaateo be safeerij walaalu koto



- yaateolu safee i la walaa to, i ye tomboolu timmandi



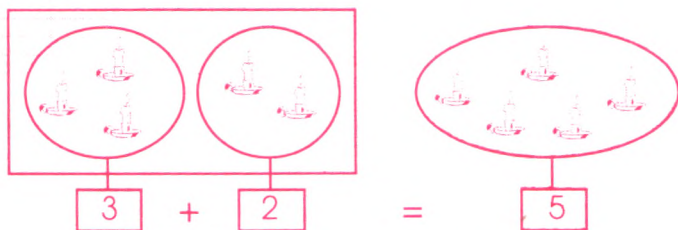
nga nikindiroo ke

- nga ñij kafundiroolu bulandi nna walaa to

$11 + 8 = \dots\dots$	$16 = 8 + \dots\dots$
$18 = 10 + \dots\dots;$	$8 + 7 = \dots\dots$
$13 = 9 + \dots\dots$	$12 = 6 + \dots\dots$
$12 + 5 = \dots\dots$	$11 = 5 + \dots\dots$
$14 + 6 = \dots\dots$	$7 + 6 = \dots\dots$
- **misaalifee** : rama ye sanji 11 ne soto, siidi wo ye 8 le soto ;
i moo fuloolu ye sanji jalu le soto, nig i ye sanjoolu kafu ñog ma ?

kafuñoomoo miɗ maɗ sekkiroo soto

nga korosiroo ke



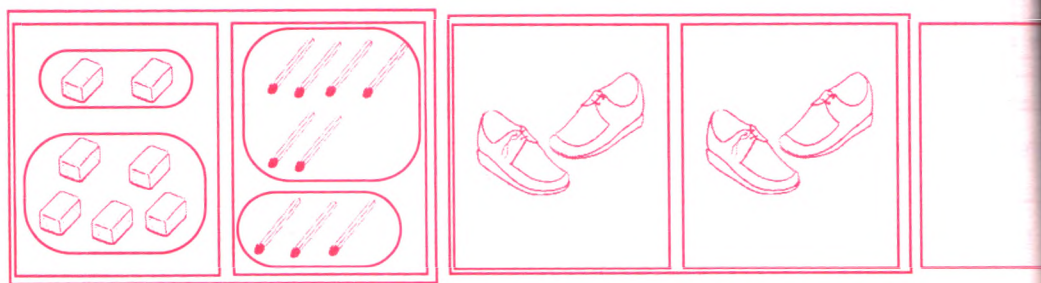
$$5 + 4 = 9$$

$$4 + 5 = 9$$

n be a fo la le saba niɗ nga
fula **kafu** a ma, a si ke **luulu** ti

nga ñinindiroo ke

- nga feɗolu yitandi minnu ka kafu ñoɗ ma, wo koolaa nga i tembo safee



..... + + +

nga nikindiroo ke

- ñiɗ feereelu bulandi, i ye a ke i la wɗalaa to

$$6 + 3 =$$

$$1 + 7 =$$

$$4 + 4 =$$

$$2 + 3 =$$

- ñiɗ yirikoolu minnu be kilig-ke kaduriɗ i loondi kuu ñiɗ yaad lu bala minnu temboo ye d

$$2 + 5 =$$

8

$$8 + 1 =$$

7

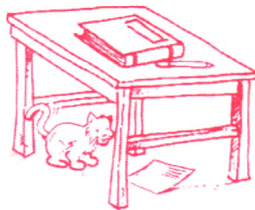
$$3 + 3 =$$

9

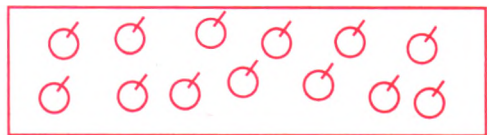
$$5 + 3 =$$

seyinkajo

- a fo fegolu minnu be taabuloo kaj, anig minnu be a koto



- a safee i la walaa to, ñig nataaloolu nig mig kaañanta



- ñig bulandiroo temboolu safee i la walaa to

$$10 = 7 + \dots$$

$$\dots + 2 + 5 = 10$$

$$10 = 8 + \dots$$

$$4 + 2 + \dots = 10$$

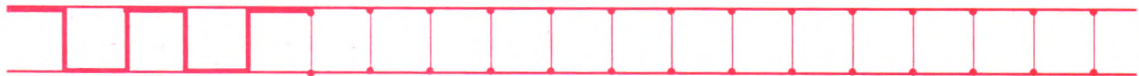
$$10 = \dots + 9$$

$$\dots + 5 = 10$$

$$10 = 6 + 1 + \dots$$

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

- ñig timmandiroo ke i la walaa to waranteg karinee to

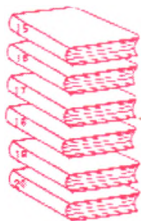


- safeeroo ke i la walaa to, ka bo o fo 15

- **misaalifee** : siidi nig rama ye siiseendij 6 le soto. yaayi rama ye 4 sag i ye koteke. saaji seeseendij jali le be i bulu ?

- 10 nig 20 teemoolu timmandi i la walaa to

- yaateeri kulu jumaa le be santo anig jumaa le be duuma



- ñig bulandiroolu loondi i la walaa to, i ye i bulandoo temboo fo

$$10 + 3 = \dots$$

$$11 + 4 = \dots$$

$$12 + 5 = \dots$$

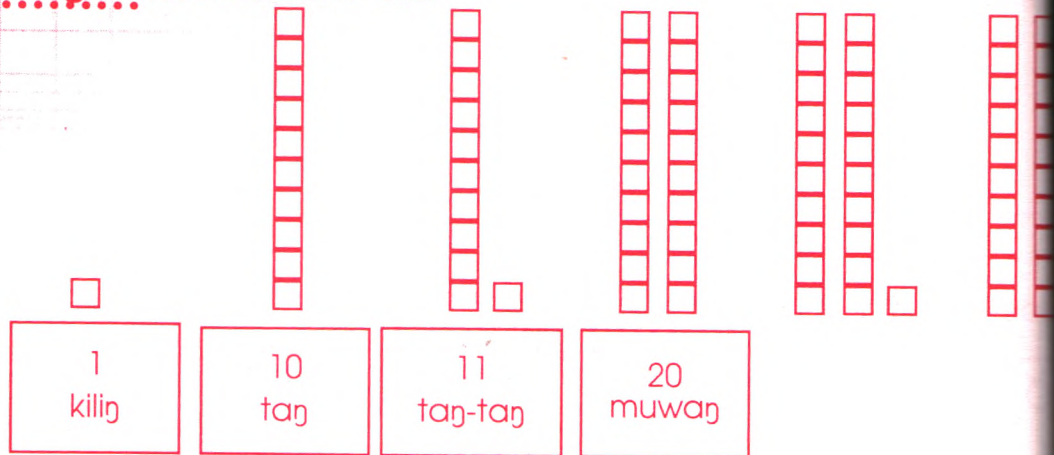
$$16 + 3 = \dots$$

$$11 + 4 + 1 = \dots$$

$$13 + 3 + 2 = \dots$$

yaateerolu 20 fo 30

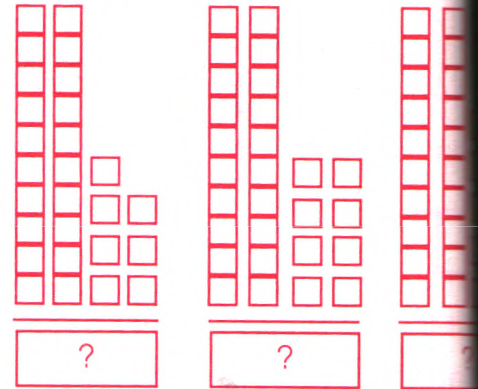
nga korosiroo ke



nga ñinindiroo ke

- jooɗajolu ñiniɗ, waranteg feɗ mesegolu minnu yaateo be tembe la ñiɗ yaateeri yirikoolu fee :
23 - 24 - 25

- ñiɗ feɗolu yaateo temboo saba i koto



nga nikindiroo ke

- ñiɗ yaateolu temboolu safee harafoolu la
 - muwaj niɗ saba
 - muwaj niɗ luulu
 - muwaj niɗ seyi
 - muwaj niɗ kononto
- ñinnu timmandi i la karinee to

$21 = 18 + \dots$	$29 = 14 + \dots$
$25 = \dots + 13$	$27 = \dots + 15$

- ñiɗ sappu fuloolu korosi, minnu tembeta, i ye wolu safee i la karinee to

$18 + 4$	21
$10 + 14$	22
$12 + 9$	23
$15 + 8$	24

janayaariḡolu niḡ sutuyaariḡolu

.....nḡa korosiḡoo ke



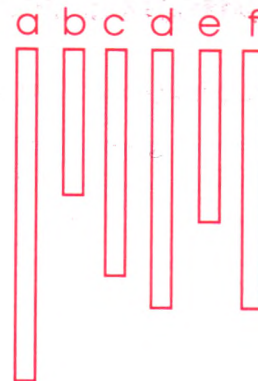
a juubee miḡ jaḡayaata
ñinnu kono



a juubee miḡ sutuyaata ñinnu kono

.....nḡa ñinindiroo ke

- dindiḡ 3 yiḡa minnu jaḡayaa (loo) i maḡ fata baake
- minnu la jaḡayaa (loo) maḡ fata baake wolu karabula



.....nḡa nikindiroo ke

- dindiḡ 2 minnu la jaḡayaa (loo) maḡ fata baake.
kilig wo kilig ye sinfaa daañaa 4 ke, wo jaḡayaalu (loolu) sumag baḡ

janayaarinolu niƙ sutuyaarinolu

.....nɔa korosiroo ke



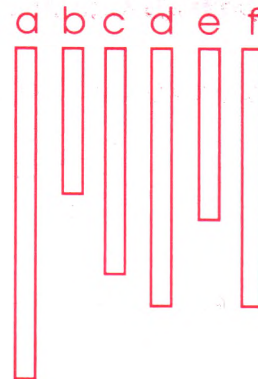
a juubee miƙ jaƙayaata
niƙnu kono



a juubee miƙ sutuyaata niƙnu kono

.....nɔa niƙindiroo ke

- dindiƙ 3 yiƙa minnu jaƙayaa (loo) i maƙ fata baake
- minnu la jaƙayaa (loo) maƙ fata baake wolu karabula



.....nɔa niƙindiroo ke

- dindiƙ 2 minnu la jaƙayaa (loo) maƙ fata baake.
kiliƙ wo kiliƙ ye sinfaa daaƙaa 4 ke. wo jaƙayaalu (loolu) sumaƙ baƙ

feg bambandiḡolu laa

nga korosiroo ke



dee



sukuroo



balajo (katadanfurajo)



laakeree

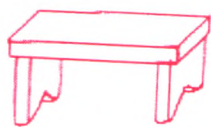


kereemoo



so

nga ñinindiroo ke



teputepoo



tuutuurajo
(eponsoo)

a yita fego miḡ bambanta ñinnu
kono



mbuuroo



ñam

fego maa miḡ bambanta ñinnu
kono

nga ñikindiroo ke

- ñiḡ fegolu korosi, miḡ bambanta i bee kono, i ye wo muruu i bulukonondiḡo



- niḡ fegolu bulandi ñoḡ nooma, i bambanta ñoḡ ti ñamiḡ :
mbuurro - beroo - kolomoo - neo - foolee

siidulaa

.....n̄a korosiroo ke



potoolu bee kaañanta
poti 3 + poti 3 + poti 3 + poti 4 = poti 12
n se a fo ko :
poti 3 siidulaa 4 kaañanta poti 12
a be ten ne pot 3 nna a siidula
4 kaañanta poti 12
waraj
poti 3 x 4 = poti 12



potoolu bee kaañanta
poti 4 + poti 4 + poyi 4 = poti 12
n se a fo le ko
poti 4 siidulaa 3 kaañanta poti 12
a be tej ne poti 4 n̄a a siidula 3
kaañanta poti 12
waraj
poti 4 x 3 = poti 12

.....n̄a ñinindiroo ke

- n̄a ñig yirikoolu timmandi

$$5 + 5 = 10$$

$$\dots \times \dots = 10 \quad \text{waraj}$$

$$\dots \times \dots = 10$$

$$2 + 2 + 2 + 2 + 2 + 2 = 12$$

$$\dots \times \dots = 12 \quad \text{waraj}$$

$$\dots \times \dots = 12$$

.....n̄a nikindiroo ke

- ñig yirikoolu loondi, i ye naa i bulandi

$$2 \times 3 = \quad \quad \quad 4 \times 2 =$$

$$3 \times 2 = \quad \quad \quad 5 \times 2 =$$

seyinkajo

- ñij nataaloolu yaateo tumboo safee i la walaa to



- feegolu kafu ñooma ko kunsaa lu, minnu la jagayaa mag fata bo



- ñij feereelu timmandi i la walaa to waranteg i la karinee to

kili 12 – kili 2 = kili

kunu 9 – kunu 5 = kunu

saajii 15 – saajii 10 = saajii

- kasabiroo foloo ka bo 30 fo 40, i ye a safee i la walaa to

- feereelu timmandi i la walaa to

$$30 = 20 + \dots\dots$$

$$20 + 20 =$$

$$16 + 21 = \dots\dots$$

$$30 = 15 + \dots\dots$$

$$30 + \dots\dots = 40$$

$$24 + 12 = \dots\dots$$

$$30 = \dots\dots + 5$$

$$35 + \dots\dots = 40$$

$$35 + 4 = \dots\dots$$

- i la walaa taa, i ye ñij nataaloolu timmandi jee yaateeri yirikoolu ñij i taamanseeroola la



... X ... : ...



... X ... : ...



... X ... : ...

- **misaalifee 1** : kili 39 le be waafirilaa bulu. a ye 24 waafi, 5 teeta bulu. kili jali le tuta a bulu ?

- **misaalifee 2** : yero fulandigo lafitaa saajii kooree le la. a ye saa musu 8 ñij saq kotoj 5 saq. saajii musoolu bee ye dig fula wuluu. beeyaj jali le be yero la kooree to saajii ?

siidulaa bota kafuñoomoo le bala

.....nga korosiroo ke



koojaaroolu bee kaañanta :

koojaari 3 + koojari 3 + koojaari 3

waranteg

k 3 x k 3 = k 9

woto n be a fo la le ; k 3 nga a siindi dulaa 3, wo ye k 9 wuluu

waranteg k 3 + k 3 + k 3 wo le mu k 3 x 3 = k 9

n si naa a fo k 3 siidulaa 3 mu k 9 le ti

.....nga ñinindiroo ke

- ñinnu korosi, i ye i timmandi

		=					=	
<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	=	<input type="text"/> <input type="text"/>		<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	=	<input type="text"/> <input type="text"/>
waranteg					waranteg			

.....nga nikindiroo ke

- ñiñ kafundiroo yelemanti i ye i ke siidulaamaalu ti

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

$$4 + 4 + 4 =$$

$$5 + 5 =$$

$$3 + 3 + 3 =$$

- ñiñ feereelu safee, i ye i bulandi

$$3 \times 3$$

$$2 \times 4$$

$$6 \times 2$$

$$4 \times 3$$

siidulaa waladaa 2

nga korosiroo ke



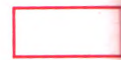
2×1



2×2



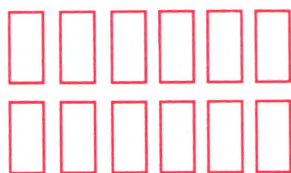
2×3



$2 \times$

nga ñinindiroo ke

- timmandiroo ke i la walaa to

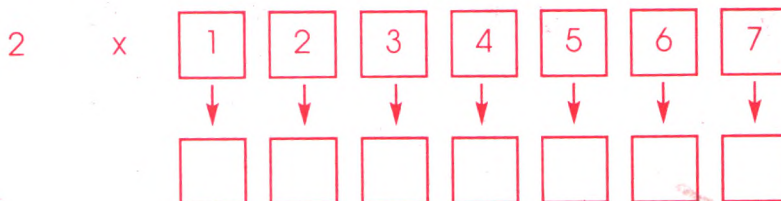


$2 \times \dots =$



$2 \times \dots =$

- timmandiroo ke i la walaa to



nga nikindiroo ke

- nga ñinindiroo ke

$kaba \text{ bitindaj } 6 \times 2 =$

$reegali 3 \times 2 =$

$kartog 1 \times 2 =$

$mentej 7 \times 2 =$

- **misaalifee** : rama ye pankeeti jurumi 2 le saɗ. jurumi wo jurumi, pankeeti 5 le be jee. pankeetoolu bee kafurigo ñooma mu jali le

somondaa nij wuraaroo

nga korosiroo ke



ñij tiloo mij be wuloo la muu karajii wulego kono

nga ñinindiroo ke



somondaa lee ?



wuraaroo lee ?

nga nikindiroo ke

- i bulukonondigo taa, i ye kuolu nij i tumoolu nakindi ñog na

kontogo

siitaa

daasoomoo

beeyaj-buloo

beeyajolu seyiwaatoo

soroo

wuraaramajo

somondaa

wuraaroo

jannig koolaa

nga korosiroo ke



jannig rama bitaa la karaj dulaa, a
ka a ñaa kuu le foloo



wo koolaa loj, a ka n
daasoomoo ke

nga ñinindiroo ke

- ñij nataaloolu korosi, i ye a fo mij foloota, wo koolaa, ka bula no
ñaamig



nga nikindiroo ke

- ñinnu bulandi ñog nooma : siidi, saalif, aminata nig rama
- a fo i ñanta mij ke la jaanig i be domoroo ke la anig domoroo
koolaa mij ka bula a nooma.
- a fo jannig kontogo be ke la, mij ka ke, wo koolaa mune ka ke
- waati jumaa lé ka tara keerig jannig salifanaa be sii la, wo koolaa
waati jumaañolu le ka bula a nooma
- j tembenfegolu ñininkaa jannig i bi taa karaj dulaa, i ye mij ke
wo koolaa fej jumaañolu le bulaata wo nooma

fegolu korosoo

nga korosiroo ke



nga ñinindiroo ke

- nga juubeeroo ke, siijuloo, niŋ fitarago niŋ karandirilaa la siirago be daamiŋ
- nga feg doolu fanag too fo, nga a fo i be daamiŋ

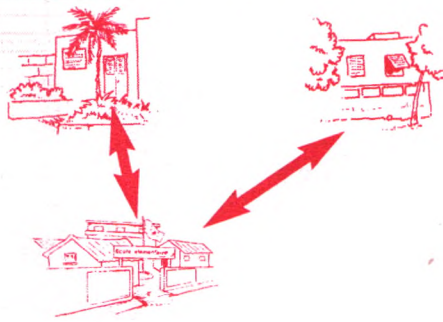
nga nikindiroo ke

- nataaloo korosi miŋ be santo, i ye a fo siidi be siiriŋ daamiŋ aniŋ ansu be a ye daamiŋ
- a fo i ye miŋ je i la karag bugo to
- kata danfu tuluŋ juubee, i ye a fo minnu be kaŋolu to, i be looriŋ ñaamiŋ
- juubeeroo ke i dooma ye, waranteg, i kotoomaa, waaran i baamaa, minnu be samata ñiniŋo la, waranteg i ye a maakoyi feg doo juubee la, a be miŋ ñiniŋo to.
- kooba kono korosi, i ye a fo joraŋolu be daamiŋ

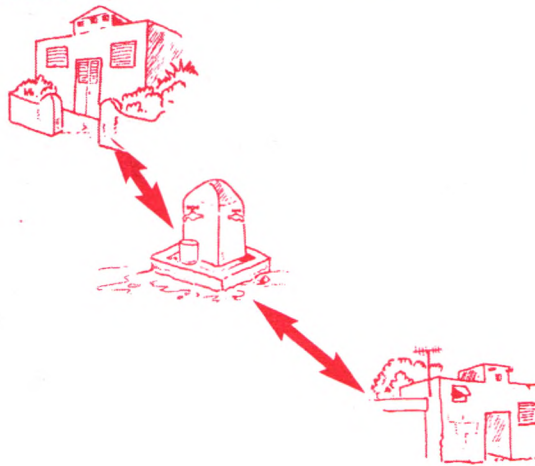


janfoolu laa

nga korosiroo ke

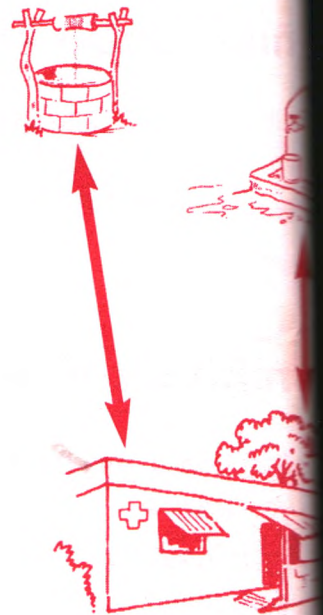


nga ñinindiroo ke



- ñij koridaa fuloolu nij kolono waraj robinee to janfoo sumaj baj

- robinee nij kologo ju katata dispanseeroo



nga nikindiroo ke

- nga sutuyaa fejolu bala i ka tuku minnu la jannij ka i futa la le ma
- ali la koridaa nij karanbujo teema to anij dispanseeroo nij karanbujo teema, sila jumaa le janfata

seyinkajo

- i la walaa taa, i ye kafuñoomoo feereelu yelemandi siidulaa feereelu ti

$$3 + 3 + 3 = ; 4 + 4 + 4 + 4$$

$$\dots \times \dots = \dots ; \dots \times \dots = \dots$$

$$7 \times 7 \times 7 = \dots ; 5 + 5 + 5 + 5 + 5 =$$

$$\dots \times \dots = \dots ; \dots \times \dots = \dots$$

- ñij nataali fuloolu ye tuma jumaa le taamansee dii tiloo kono



- korosiro ke, i ye a fo i ye mune je yiroo santo anij a kooma



- timmandiroo ke i la walaa to, 2 la siidulaa

2 x	1	2	3	4	5	6	7	8	9	10
	2									

- nataaloolu jiiibe kuj, i ye taamansee ke kilij wo kilij koto. nga taamanseeri doo dii i la wolu le mu A nij B nij C ti . A (foloo) ; B (fulanjajo) C (sabanjajo) woto A nij B nij C ke taamanseeri foloolu noo to



1

2

3

- fejolu nij i sumandagolu kafu ñooma i la walaa to

walaa

meetaroo

daraboo

sinfaa

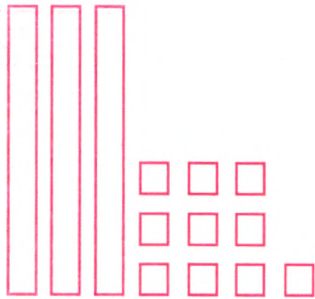
kunkoo

bayo

- **misaalifee 1** : abdu, siidi teerimaa ye banaani 3 sag. kilij wo kilij daa mu dalasi 12 le ti. a ñanta jali le joo la ? nij a ye dalasi 40 dii, i ñanta jali le seyi la a ma ?
- **misaalifee 2** : faa buraama ye sosoo kiloo 40 ne soto. a ye kiloo 32 waafi, a ye too nii. woto, faa buraama ye jali le nii ?

yaateero : 40 fo 50

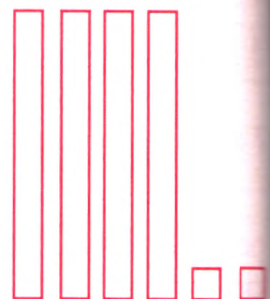
nga korosiroo ke



40
tag naani



41
tag naani nig kilig



42
tag naani nig fu

nga ñinindiroo ke

- joraḡolu taa, i ye i kafu ñooma fo i ye ñij yaateolu sii :

43 44 45

- ñij ñininkaroolu jaabiroolu safee i la walaa to

$40 + 6 = \square$

$40 + 7 = \square$

$40 + 9 = \square$

$40 + \dots = 40$

nga nikindiroo ke

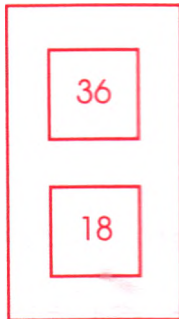
- kasabiroo ke i ye a safee i la walaa to, ka bo 39 fo 50
- ñij yaateeri yirikoolu bulandi kuj ñog nooma



kafuñoomoo miŋ ye sekkiroo soto

nga korosiroo ke

- nga loondiroo ke



$$\begin{array}{r} 36 \\ + 18 \\ \hline 54 \end{array}$$

n be foloo la kilig-kiligolu le la. nga a fo : 6 + 8 mu 14 le ti. nga 4 safee, nga 1 sekki. wo koolaa nga naa nñaa tilig tag-tagolu la nga a fo 3 + 1 mu 4 le ti anig 1 miŋ be sekkiroo, wo le mu 5 ti, nga 5 safee tag-tagolu koto, a ye ke 54

nga ñinindiroo ke

- ñiŋ loondiroolu bulandi i la walaa to

$$\begin{array}{r} 26 \\ + 15 \\ \hline = 41 \end{array} \quad \begin{array}{r} 18 \\ + 23 \\ \hline = 41 \end{array} \quad \begin{array}{r} 29 \\ + 19 \\ \hline = 48 \end{array} \quad \begin{array}{r} 16 \\ + 33 \\ \hline = 49 \end{array}$$

- ñiŋ yateri ñininkaaroolu loondi

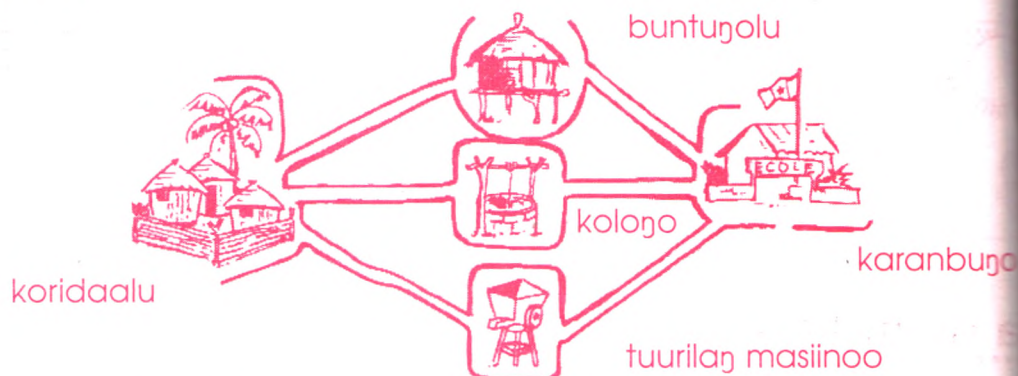
$$\begin{array}{l} 18 + 28 = \\ 29 + 12 = \end{array} \quad \begin{array}{l} 25 + 17 = \\ 16 + 29 = \end{array}$$

nga nikindiroo ke

- **misaalife 1** : siidi ye egaati 37 le soto. birig a taata tulugo la, a ye 9 soto jee. woto saaji egaati jali le be a bulu ?
- **misaalifee** : kermeesoo le be rama ñolu la lekooloo to. a naata fuda bete 3 kañee jee minnu ye booli dumbu 34 soto anig booli palaati 12 niŋ taasi 8 soto. rama la ñiŋ sotoo bee yaateo kaañanta jali le ma ?

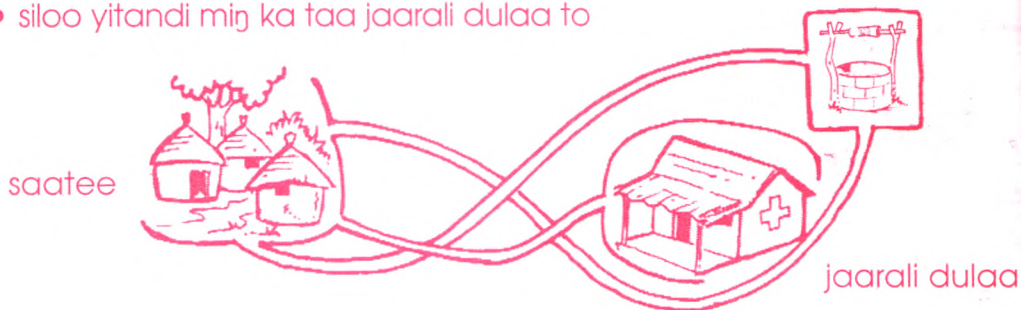
siloolu bondiña

nga korosiroo ke



nga ñinindiroo ke

- siloo yitandi mij ka taa jaarali dulaa to

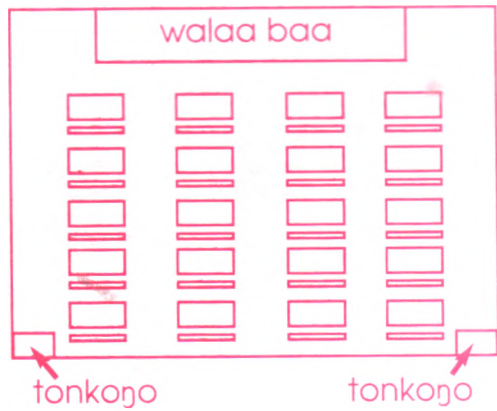


nga nikindiroo ke

- i ka taa sila jumaa le la nij i be taa la karanbugo to, nij i be naa la dug ?
- i ka taa sila jumaa ñolu le la nij i bi taa :
 - tendaa to, waranteg lumoo to,
 - kologo to, waranteg jibii dulaa to,
 - tuurilaj masiino to
- i kafuño ñininkaa a ye siloo mij taa birij a bi taa la jaamego to, waranteg labee la solidulaa to
- a fo sila jumaa le ka taa bantabaa to waranteg jaarali dulaa to
- tombu 4 nuunu i la walaa to. feeree ke wo tomboolu teema siloo soto jee

tonkogo tonkog mesego

nga korosiroo ke

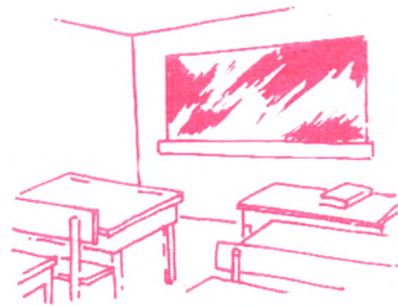


nga ñinindiroo ke

- tonkogolu yita lekooloo kono



- tonkogolu nig tonkog mesegolu yita kalaasoo kono



nga nikindiroo ke

- a fo i wuluubaa ka a la kodo maaboo damij a la bujo kono ?
- a fo i wuluufaa ka ala safeelu maaboo damij a la bujo kono ?

seyinkajo

- kasabiroo foloo 40 fo 50 i ye i safee i la walaa to
- ñij yaateeri yirikoolu bo ñoo to ; wo koolaa i ye i bulandi ñoo nooma, ka foloo waraamaa lu to ka taa domandijolu kaj :
27 - 12 - 36 - 24 - 49 - 31 - 45 - 15 - 50 - 19
- ñij misaaloo juubee, i ye a firig ñaamiig, i ye ñin doolu fanag firig wo ñaama

misaalifee : $6 = 2 + 2 + 2$

$12 = 4 + \dots + \dots$

$15 = 3 + \dots + \dots + \dots + \dots$

$20 = \dots + \dots + \dots$

- ñij nataaloolu be tuma jumaa le to ?



- **misaalifee 1** : birig rama ye luuntagolu soto, a ye liminaati kaba 23 le saŋ. a naata 15 kafu wolu ma. luuntagolu ye kaba jali le miig ?
- **misaalifee 2** : siidi ye dalasi 15 le bulandi a la keesoo kono. kunug a ye d. 20 ke jee, bii a ye d ; 12 kafu jee. dalasi jali le be siidi bula saŋji ?

- ñij feereelu, loondi i la walaa i ye naa i bulandi :

$$17 + 15 = \quad 25 + 18 =$$

$$31 + 19 = \quad 42 + 8 =$$

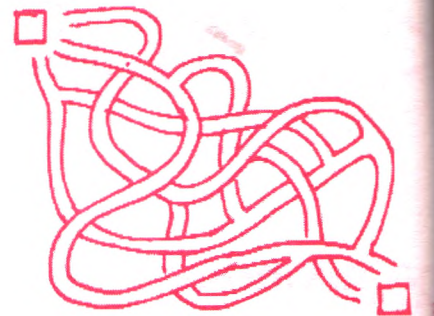
$$23 + 12 + 7 = \quad 24 + 16 + 7 =$$

- si la jumaa le sutuyaata ñij le siloolu kono ?



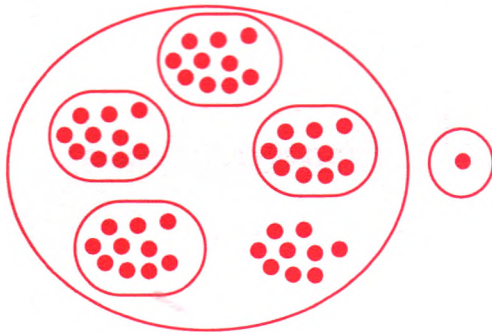
- dug dulaa bula sila betoo naa i bulukonondigo la

A



yaateeroo ka bo 50 fo 60

nga korosiroo ke

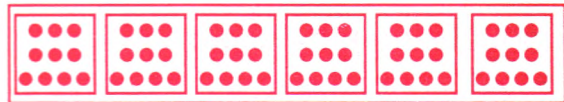


tag 4 nig 9 + 1

tag 5 = 50
tag luulu

keme keme 5 nig kilig kilig 1 = 51
keme keme 5 nig kilig kilig 2 = 52
keme keme 5 nig kilig kilig 3 = 53
keme keme 5 nig kilig kilig 4 = 54
keme keme 5 nig kilig kilig 5 = 55

keme keme 5 nig kilig kilig 9 = 59



tag-tag 5 nig kilig-kilig 10 = 60

tag wooro

nga ninindiroo ke

- rama ye dalasi 30 soto, a wuluubaa ye a so 15 la a wuluufaa ye d. 10 dii a la. rama la kodo muumee bee kaañanta jalu le ma ?
- ñij seedoolu < = > ke tomboolu nooto i la walaa kañ

54.....57	25 + 20.....56	58.....53
45.....59	31 + 27.....59	58.....45 + 13
56.....56	37 + 24.....39	

nga nikindiroo ke

- **misaalifee** : i ye keo lafita kembu booti 4 le samba la ñog na. boot wo booto la kuliya mu kiloo 12 le ti. aduj keo la yorondorilago ka kiloo 50 le noo..muna a si ñij bootoolu bee samba noo le bañ ?

3 niŋ 4 la siidulaa walaa

nga korosiroo ke



$$3 \times 1 = 3$$

suba siidulaa kilig



$$3 \times 2 = 6$$

saba sii dula fula



$$3 \times 3 = 9$$

saba sii dulaa saba



$$4 \times 1 = 4$$

naani siidulaa kilig



$$4 \times 2 = 8$$

naani siidulaa fula



$$4 \times 3 = 12$$

naani siidulaa saba

nga ñinindiroo ke

- nga ñiŋ nataaloolu korosi, nga i bulandiraŋ yirikoolu safee i koto minnu ni 3 niŋ 4 siidulaa walaadaa taa noota



$$4 \times \dots = \dots$$



$$3 \times \dots = \dots$$



$$3 \times \dots = \dots$$

nga nikindiroo ke

- 3 niŋ 4 siidulaa walaadaa timmandi i ye naa i safee i la karnee to wa ranteg i la walaa to

$$3 \times 1 = \dots$$

$$3 \times 6 = \dots$$

$$4 \times 1 = \dots$$

$$4 \times 6 = \dots$$

$$3 \times 2 = \dots$$

$$3 \times 7 = \dots$$

$$4 \times 2 = \dots$$

$$4 \times 7 = \dots$$

$$3 \times 3 = \dots$$

$$3 \times 8 = \dots$$

$$4 \times 3 = \dots$$

$$4 \times 8 = \dots$$

$$3 \times 4 = \dots$$

$$3 \times 9 = \dots$$

$$4 \times 4 = \dots$$

$$4 \times 9 = \dots$$

$$3 \times 5 = \dots$$

$$3 \times 10 = \dots$$

$$4 \times 5 = \dots$$

$$4 \times 10 = \dots$$

- misaalifee** : faa fodaali ye mangu juu 4 le tutuu. kilig wo kilig a ye a jiiibog jio liitari 8 le la. a ye liitari jalu le bog mangoolu koto

talaantee

nga korosiroo ke



fula 1



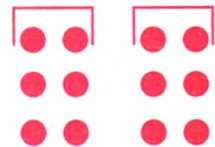
fula 2



fula 3



larincoolu
talaantee



egaatoolu
talaantee

nga ñinindiroo ke

- i la jooragolu ñinig, ñin yaateeri kuloolu ye wo koolaa, i ye fula-fula loondi :

7 - 8 - 9 - 10

- jaabiroo safee i la walaa to

- jali le mu ñinnu talaantee ti ?



kaba
sorondaj
4 ?



kaba
sorondaj
6 ?



kaba
sorondaj
10 ?

nga nikindiroo ke

- fula siiñaa jali le be egaati 3 to ; tangali 5 to ; kaba sorondaj 7 to ; kalaa 9 to ; booto 10 to.

- ñig yaateeri kuloolu kilij wo kilij siidulaa fuloolu safee a ñaatilligo la

6

2

9

17

1

12

2

8

8

6

5

4

- a fo **haa** waranteg **hani**

9 le mu 18 talaantee ti h hn

2 le mu 4 talaantee ti h hn

5 le mu 11 talaantee ti h hn

7 le mu 14 talaantee ti h hn

3 le mu 6 talaantee ti h hn

- ñig ñininkaroolu loondi i ye naa i bulandi

2 : 2

4 : 2

siidulaa niƙ siidulaaraƙ yirika 1

niƙa korosiiroo ke



siidi 2, yiri juu 7 kilig wo kilig to



banaani sunju 4, kilig wo kilig to
banaani dij 12

niƙa ñinindiroo ke

- mangu laa 3, laa wo laa dij 23 le bi jee. mangoo bee mu jalu le ti

- ñiƙ yelema ila walaa to, i ye naa a bulandi

$$4 \times 2 = \quad \quad 14 \times 2 =$$

$$6 \times 2 = \quad \quad 12 \times 4 =$$

$$13 \times 3 = \quad \quad 13 \times 3 =$$

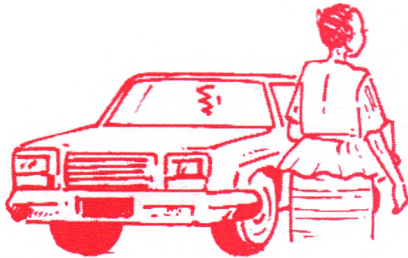
niƙa niƙindiroo ke

- **tafa 1** : siidi ye mbuusi 4 soto, mbuusi kilig wo kilig kono a ye nee dij 11 ne ki jee. siidi ye nee dij jalu le soto ?
- **tafa 2** : rama ñolu la kankajo kono, mangu juu sappu 3 le bi jee, sappu kilig wo kilig to mangu juu 6 le bi jee, mangu juu jalu le be kankajo kono ?

mig katata

mig janfata

.....nɔa korosiroo ke



rama katata wotoo la



siidi janfata wotoo la

.....nɔa ñinindiroo ke

- fegolu yita, minnu janfata bundaa la



- fegolu yita minnu katata yiroo la



.....nɔa nikindiroo ke

- fego yita, mig janfata dindigo la

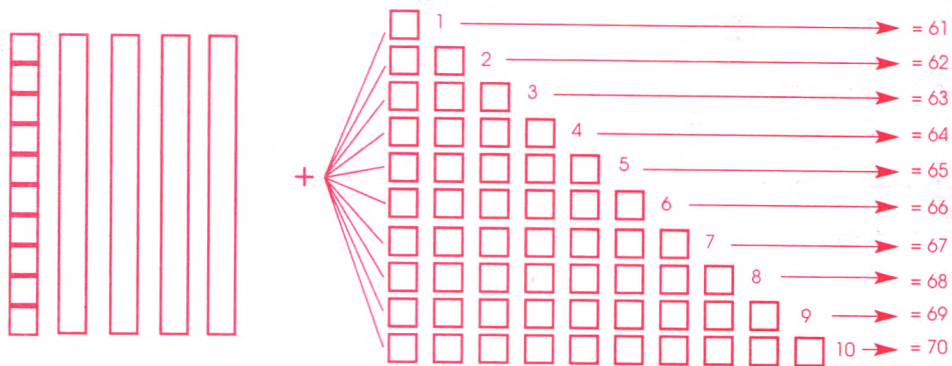


- siiseendigolu yita, minnu sutuyaata i baamaa la



yaateeroolu minnu foloota 60 fo 70

nga korosiroo ke



nga ñinindiroo ke

- nga taamanseeroo ke tomboolu to, taamanseelu minnu tembeta jee (< = >)

$$63 \dots 61$$

$$42 + 28 \dots 70$$

$$68 \dots 65$$

$$55 \dots 67$$

$$51 + 13 \dots 64$$

$$66 \dots 42 + 15$$

$$64 \dots 64$$

$$47 + 23 \quad 13 + 57$$

nga nikindiroo ke

- ñij yaateeri harafa ŋolu yirika safee i nooto :

tag wooto nij sabo =

tag luulu nij worowula =

tag naani nij kononto =

tag worowula =

- ñij yaateeri yirikoolu harafa safeeri

$$68 =$$

$$60 =$$

$$61 =$$

$$55 =$$

- **misaalifee** : puraa 62 le be siidi bulu. i ye a so 8 la. saangi puraa jalu le be a bulu. bari 15 naata faa. jali ñanta tu la a bula ?

nataaloolu logo

nga korosi ke



nga ñinindiroo ke

- nga ñinnu korosi, wo koolaa nga a fo kilij wo kilij, kara jali le be a la, anig tokog jali ?



- nga a fo i karoolu nig tonkogolu be ñamig

nga nikindiroo ke

- nuunuu tonkog maa saboolu yaatee safee i la walaa to



- nuunuo boyi i la walaa to waranteg i la karneo to, nuunuo mig ye tonkog naani soto, minnu tembeta anig nuunuo sorondiigo dug dulaa te mig na
- nuunuo boyi i la walaa to waranteg i la karnee to, nuunuu mig na kara fuloolu jagayaata, adug a kara fula doolu sutuyaata
- jooragolu too dii minnu ye tonkog 3 nig kara 4 soto minnu kaañanta. kara 4 nig kara 2 jagayaata ; kara fula sutuyaata joorag mig be ko nuunuu sorog maa

nga ñig muta ko

- **kaaree** a ka tonkog naani le soto minnu kaañanta

rekitanguloo : wo le la kara fula ka tembe jagayaa la, a kara fula doolu ka tembe sutuyaa la

bonkono miƙ maƙ sekkiroo soto

nga koroosi ke

- musee maanu ye karnee 75 le soto. a ye 52 dii a diƙolu la. jali le ñanta tu la a bulu ?

laañaato : ñiƙ ne ñanta tu la a bula :

$$75 \text{ k} - 52 \text{ k} = 23 \text{ k}$$

- nga feereolu loondi nga yaateo bulandi :

+	k	nga foloo kilig kiligolu la ka a fo : nga 2 bondi 5 to, a tu jee ③ 5 nga wo bondi 7 a ye tu ② la.
7	5	
-	5	
2	3	

nga ñinindiroo ke

- nga ñiƙ bondiri feereolu loondi walaa to, nga naa i bulandi

$74 - 61 = \dots$

$80 - 40 = \dots$

$79 - 25 = \dots$

$65 - 32 = \dots$

$78 - 54 = \dots$

$72 - 50 = \dots$

$77 - 13 = \dots$

$69 - 23 = \dots$

$75 - 62 = \dots$

nga nikindiroo ke

- **misaalifee 1** : rama lafita joonoo le sooli la, miƙ ye kese 64 soto. bari jooni kese 40 dammaƙ ne be a bulu. kese jali le ye a dasa ?
- **misaalifee 2** : duudu ye mangu diƙ 75 le kati. yaarafaj 23 bee maƙ moo. mooriƙ jali le be a bulu ?
- **misaalifee 3** : tiya yaaleeraƙ wotoo ye kiloomeetari 52 le bori. aduƙ ñanta 78 le bori la; a ñanta kiloomeetari jali le bori la koteke.
- mansaali kilig waranteg fula dii, minnu ye bonkono feereolu soto, sekkiri te daamiƙ.

telendiroo (talaaroo) feeree

nga korosiroo ke

- **misaalifee** : waafirilaa nanta tamaree diij 52 le tala la bootoondij 4 teema ; tamaree diij jali le ñanta tara la booto wo booto kono ?

a laañato : bootoondij wo bootoondij ñanta : $52 : 4 =$

- nga feereolu loondi, nga yaate bulandi

t	k		nga telendiroo (talaaroo) foloo tag, tagolu la ka fo 5 kono, 4 siidulaa jali le be jee ? siidulaa kilig, nga 1 safee nga a yee ma siiñaa 4, $1 \times 4 = 4$. nga wo bondi 5 to, a ye tu jee 1 nga 2 jidi, a ke 12 ti. 12 kono, 4 jali le siidulaa noo ? siiñaa 3. nga 3 siidulaa 4 ñiniig, wo le mu 12 ti. nga wo bondi 12 to, a tu jee 0.
5	2	4	
1	2	13	
1	2		
0	0		

nga ñinindiroo ke

- nga ñiig telendiroo (talaarilaag) feereolu loondi walaa to, nga naa i bulandi

$$24 : 2 =$$

$$36 : 3 =$$

$$45 : 3 =$$

$$52 : 4 =$$

$$72 : 6 =$$

$$84 : 7 =$$

$$75 : 5 =$$

$$81 : 7 =$$

$$68 : 2 =$$

nga nikindiroo ke

- **misaalifee 1** : siidi, rama abdu niig gansu ye karnee duuseeni 2 le kañee; niig i ye a tala ñoig teema, moo wo moo ñanta jali le soto la.
- **misaalifee 2** : musu 3 denta i ye caali sinsijo saag ; caali 78 be niig kono, talaaroo ñanta ke la. musu wo musu be caali jali le soto la. niig caali kilig ka saag dalasi 5 le la musu wo musu be ñee tio jool la jali le la ?
- **misaalifee 3** : duudu dunta saajii kooree kono, a ye saajii-siig 76 le kasabi. woto, saajii jali le be kooree kono ?
- misaali doo dii, talaaroo (telendiroo)kono, niig feeree niig ñiig doolu mulunta

..... nga korosiroo ke



..... nga ñinindiroo ke



- a yita mig tariyaata

- a yita mig naafata

..... nga nikindiroo ke

- i bulukondigo taa i ye a muruu fegola mig tariyaata wokoolaa i ye a yita feg mig naafata

