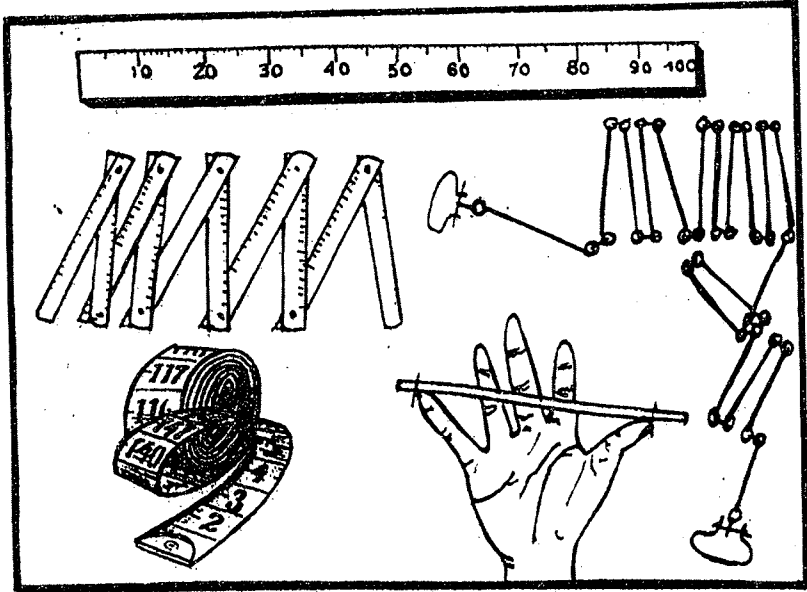
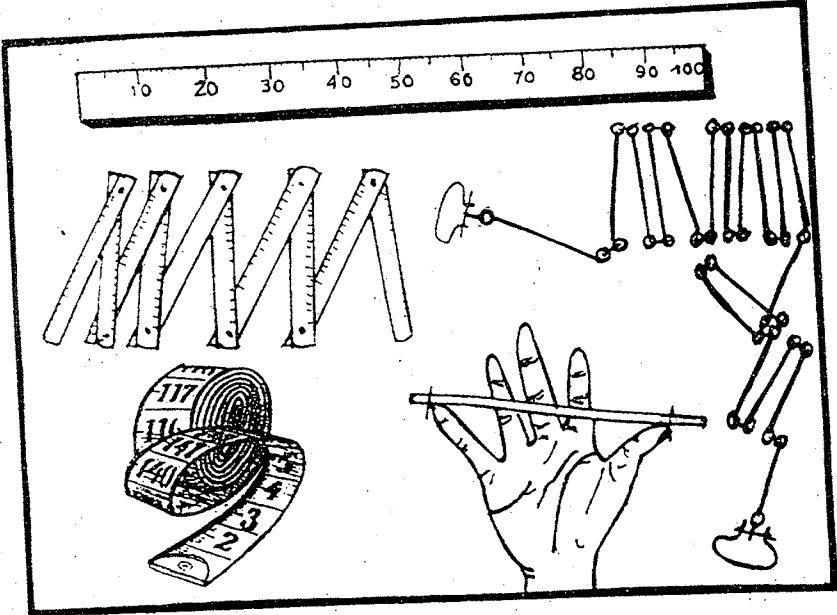


Kabu hinkantoo



Kabu hinkantoo



Hinnawey bayraa : zenbery

Zangey hinna koraa ti woo : 999

- 9 koraa kaŋ goo kabe gumaa here sii kala affawey se,
- 9 kaŋ goo game sii kala iwoyey se,
- 9 kaŋ goo kabe wawa here sii kala zangey se.

Nda ir na feraw foo(1)tonton feraw 999 ga ir ga duu feraw zenber foo (1000). Woo binde kabu-ize taaci no. Adisi sorrawey ga ti itaaci sorrawey ra.

zangey		hugoo	
zangey	iwoyey	affawey	
9	9	9	

1000 = zenber foo
ni ga sintin nda kabe gumaa here.

Zangey hugoo ra :

- 0 : affawey se a goo,
- 0 : iwoyey se a goo,
- 0 : zangey se a goo
- 1. Sii kala zenberey hugoo ra. nga no ma a sintin.

2564 = zenber hinka nda zangu guu nda woydu cindi taaci:

- 4 : affawey se a goo,
- 6 : iwoyey se a goo,
- 5 : zangey se a goo,
- 2 : zenberey affawey se a goo.

zenbery hugoo			zangey hugoo		
zangey	iwoyey	affo- wey	zangey	iwoyey	affo- wey
		1	0	0	0
		2	5	6	4
		9	9	9	9

Furari :

1- wa hinnawey caw : 6 - 35 - 10 - 17 :

96 - 69 - 50 - 102 - 445 - 730 - 510- 320 -

701- 800- 960- 696- 699- 309- 100- 741-

852- 600. 1346- 1000- 1005- 1050-

1500- 7200- 9600- 6900- 9069- 9609-

2050- 5230- 2503- 2053- 2000- 5400-

8000- 8107- 7080- 4444.

2- wa wey daɗ nda kabu-ize :

zangu guu nda itaaci :.....

zenber hinka nda iyye :.....

zenber guu nda waranka.....

zenber iyye nda zangu hinza nda woytaaci.....

zenber yaaha nda zangu iddu nda woytaaci cindi yagga :.....

Zenberey

Zenberey affawey hinna koraa ti woo 9999.

Nda ir na rjaari kilo foo tonton rjaari kilo 9999 ga kul ir ga duu kilo zenber woy (10 000). Woo binde kabu-ize guu no.

Adisi sorrawey ga ti iguu daaroo ra.

10 000 = zenber woy.

N' ga sintin nda ni kabe gumaa here.

zangey hugoo ra

- 0 : affawey se a goo,
- 0 : iwoyey se a goo,
- 0 : zangey se a goo,
- 0 : zenberey affawey se a goo,
- 1 : zenberey iwoyey se a goo.

zenberiy hugoo			zangey hugoo		
zangey	iwoyey	affa-we	zangey	iwoyey	affa-wey
7	1	9	9	9	9
9	2	0	0	0	0
	6	5	6	4	0
	9	9	3	4	5
			9	9	9

25640 : zenber waranka cindi guu nda zangu iddu nda woytaaci.

768345 : zenber zangu iyeye nda zenber woydu cindi yaaha nda zangu hinza nda woytaaci cindi guu.

- 5 : affawey se a goo,
- 4 : iwoy se a goo,
- 3 : zangey se a goo,
- 8 : zenberey affawey se a goo,
- 6 : zenber woyey se a goo,
- 7 : zenber zangey se a goo.

Furari :

1- wa wey caw, war ma wey kan zeeri goo i cire dan daaroo ra.

16- 48- 105- 340- 572- 430- 7- 24- 1562-

7740- 3045- 1030- 5004- 23750- 49633-

4050- 81500- 85001- 62700- 3410-

470300- 690690- 100000- 540000-

641070- 3005- 98450.

2- wa hantum nda sigira (harfu)

231.....

49.....

307.....

1540.....

32000.....

514500.....

Miliyonɛy

Zenber zangey hinna koraa ti woo :
999999.

Nda ir na hayni kilo foo tonton hayni kilo
999999 ga kul ir ga duu kilo zenber hala cee
zenber foo wala miliyonɛy foo. Nga ti woo : 1
000 000.

Woo binde kabize iyye no.

Adisi sorrawey ga ti iyye daaro ra.

1 000 000 = miliyonɛy fo.

Laasaabu :

Zangey hugoo : 0 hinza bara a ra.

Zenberɛy hugoo : 0 hinza bara a ra.

wey ti yaada iddu kaɲ jine 1 huru kabe waawa
here. 1 kaɲ goo sorro iyyantoo ra no ma
miliyonɛy sintin. adisi miliyonɛy affawey se a
goo.

4 573 126 = miliyonɛy taaci nda zenber zangu
guu nda zenber woyye cindi hinza nda zangu
foo nda waranka cindi iddu.

Sintin nda kabe gumaa here :

Zangey hugoo

- 6 : affawey se a goo,
- 2 : iwoyey se a goo,
- 1 : zangey se a goo.

Zenberey hugoo

- 3 : affawey se a goo,
- 7 : iwoyey se a goo,
- 5 : zangey se a goo.

Miliyoŋey hugoo

- 4 a sii kala miliyoŋey affawey se.

miliyoŋey hugoo			zenberey hugoo			zangey hugoo		
zan gey	iwo-yey	affa wey	zan gey	iwo yey	affa wey	zan gey	iwo yey	affa wey
		1	9	0	0	9	9	9
		4	0	7	3	0	0	0
		9	9	9	9	1	2	6
						9	9	9

Furari :

1- wa wey caw : 130- 407- 3580- 8053-

12 000- 41 069- 46 900- 50 912- 30405-

200 000- 708- 2.954 382- 1.900 045-

7.253 467- 6.241 350- 320 504- 1002-

4.320 205- 4.500 000- 8.000 000-

220 000- 7.120 200- 1.824 000- 907-

86 970- 1.000 000- 5.785 000.

2- wa wey daŋ nda kabu-ize :

- miliyoŋ guu nda zenber zangu foo :....
- zenber woytaaci cindi iyye :....
- zenber zangu hinka nda zenber iyye nda zangu hinka.....
- miliyoŋ yagga nda zenber waranka cindi guu....

Miliyonɛy

Nda ir na wura garam foo zaa ka a tonton wura garam 9999999 ga kul garam miliyonɛy woy no ir ga duu. Nga ti woo : 10 000 000.

Woo binde kabu-ize yaaha no.

Adisi sorrawey ga ti yaaha daaroo ra.

10 000 000 = miliyonɛy woy.

Laasaabu :

Zangey hugoo : 0 hinza bara a ra.

Zenberɛy hugoo : 0 hinza bara a ra.

Miliyonɛy hugoo : 0 foo bara a ra kaɗ goo affawey sorraa ra nda 1 kaɗ ga miliyonɛy woyey hinnaa cebe. Adisi miliyonɛy woyey sorraa ra a goo.

450 769 130 = miliyonɛy zangu taaci nda miliyonɛy woygu nda zenber zangu iyɛe nda zenber woydu cindi yagga nda zangu foo nda waranza.

Sintin nda kabe gumaa here :

Zangey hugoo :

- 0 : affawey se a goo,
- 3 : iwoyey se a goo,
- 1 : zangey se a goo.

Zenberɛy hugoo

- 9 : affawey se a goo,
- 6 : iwoyey se a goo,
- 7 : zangey se a goo.

Miliyonɛy hugoo :

- 0 : affawey se a goo,
- 5 : iwoyey se a goo,
- 4 : zangey se a goo.

Wey kul cere ra ti sorro yagga : zama hugu foo kul sorro hinza bara a ra.

miliyonɛy hugoo			zenberɛy hugoo			zangey hugoo		
zan gey	iwo yey	afa wey	zan gey	iwo yey	afa we	zan gey	iwo yey	afa we
		9	9	9	9	9	9	9
	1	0	0	0	0	0	0	0
4	5	0	7	6	9	1	3	0

Furari :

1- Wa wey caw ;

73- 52- 29- 350- 1203- 407- 6040-

12 450- 80 720- 301 400- 724 840-

103 294- 6 521 280- 3 400 000-

9 714 280- 5 000 000- 9 472 824-

24 284 250- 82 712 850- 112 493 500-

8700- 54 290- 720 540 000- 12 473.200

519 840 000- 200 000 000- 696 780 812

2- Wa wey hantum nda harfu :

720 500 000 :

35 270 000 :

120 750 000 :

Takaa kan nda hinna ga taaba
nda 10, 100, 1000

1. Kaatibi 50 ti markasu foo hay -Marje
ti markasu 10 hay timmanta ?

$$\text{kaatibi } 50 \times 10 = \text{kaatibi } 500$$

. Hala ni ga baa ka hinna taabu nda 10,
yaadaa kan goo iwoyaa ra de no ni g'a dan
hinnaa din ga kabe gumaa here.

2. Marje ti markasey hay timmanta
nd'a gar i too 100 ?

$$\text{kaatibi } 50 \times 100 = \text{kaatibi } 5000$$

. Hala ni ga baa ka hinna taabu nda 100,
yaada hinkaa kan goo zangoo ra no ni g'i dan
hinnaa din ga kabe gumaa here.

3. Marje ti markasey hay timmanta
nd'a gar i too 1000 ?

$$\text{kaatibi } 50 \times 1000 = \text{kaatibi } 50\ 000$$

. Hala ni ga baa ka hinna taabu nda 1000,
yaada hinzaa kan goo zenberoo ra de no ni g'i
dan hinnaa din ga kabe guma here.

Wa dimmawey daɗ :

. Saafun 12 bara pakati foo ra.
Saafun marje bara :

- Pakati 10 ra ?
- Pakati 100 ra ?
- Pakati 1000 ra ?

. Garam 5 ti ponti foo tiɗaa. Garam
marje ti :

- Ponti 10 tiɗaa ? 100 ? 1000 ?
10 000 ?

. Feraw foo hayoo ti kaatibi 3.
Kaatibi marje ti :

feraw 10 hayoo ? 100 hayoo ? 1000
hayoo ? 10 000 hayoo ?

Takaa kaɗ nda hinnawey kaɗ ga
yaadayaɗ goo ga zemna nda 10, 100,
1000.

1. Kaatibi 50 ti biski pake 10 hayoo-
Marje ti biski pake foo hayoo ?

Hala ir ga baa ir ma duu pake foo hayoo
kul ir ga hin ka yaadaa tuusu kaɗ goo 50 ga.
Adisi kaatibi 5 ti pake foo hayoo.

2- Kaatibi 500 ti biski paka 100 hayo -
Marje ti biski pake foo hayo ?

Hala ir ga baa ir ma duu pake foo hayoo
kul ir ga hin ka yaada hinkaa tuusu kaɗ goo
500 ga. Adisi kaatibi 5 ti pake foo hayoo.

3- Kaatibi 5000 ti biski 1000 hayoo-
Marje ti biski pake fo hayo ?

Hal' ir ga baa ir ma duu pake foo hayoo
kul ir ga hin ka yaada hinzaa tuusu kaɗ goo
5000 ga. Adisi kaatibi 5 ti pake foo hayoo.

4- Kaatibi 9500 ti hommo saaku 10
hayoo- Marje ti saaku foo hayoo ?

Waattoo kanj yaada folloku bara 10 ra kanj ti zemnaka, yaada folluku de no ir g'a tuusu zemnanta ra kanj ti 9500. Adisi saaku foo hayoo ti kaati 950.

Furari :

1- Kaatibi 250 ti hommo poti 10 hayoo. Marje ti poti foo hayoo ?

2- Alfari 100 ga hima ka kaatibi 30 000 bana.

Marje no alfari foo kul g'a bana ?

3- gaari ton foo hayoo ti kaatibi 37 000 Marje ti gaari kilo foo hayoo ?

Kaatibey bayraa

Doj borey cindi i si haya kul tee kala i ga ngi muraadu hayey barmay cere ga. Maanaa ti ni g'ay noo ni taasoo, ay ga ni noo adabba, wala ay ga ni noo ay jiyoo ni g'ay noo ni haamiisa.

Zaman tee kanj borey waafaku nooruzoo ga k'a ka haya day. Annasaarey kaaroo zamanoo n'ir ka santi bay, a n'ir ka suu bay, a n'ir ka pikini bay, a n'ir ka tamma nda kaatibi bay. Sojo da kaatibi ti noorey kul ikaccaa kanj ga gandi ir do.

Kaatibi (alliyaara) ti hinnaa kanj nda ir ga sintin ka kabu.
kaatibi foo(1)kul seefa tamma 5 no. Adisi kaatibi guu (5) kul seefa tamma 25 no.
kaatibi 20ga sawa nda seefa tamma 100
kaatibi 100ga sawa nda seefa tamma 500
kaatibi 100 000 ga sawa nda seefa tamma 500 000
woo ti tamma miliyon jere
kaatibi 200 000 ga sawa nda seefa tamma Zenber hala cee zenber, foo. woo ti tamma miliyon foo (1 000 000).

Tamma Kaatibi

00000 5f

Seefa tamma 5 = Seefa kaatibi 1

10f 500f

25f 1000f

50f 2500f

100f 5000f

250f 10 000f

Gaabandi : Waatoo kaɗ kaatibi foo(1) kul seefa tamma 5 no, takaa woo nda ni ga hinnawey laasaaboo tee nooru ra.

- Nda seefa kaatibi ra ni duu hinnaa ni mma hinnaa din taabu nda 5 ka duu a seefa tamma ra.

- Nda seefa tamma ra ni duu hinnaa ni m'a zemni nda 5 ka duu a seefakaatibi ra.

. Wa kaatibey wey ti seefa tamma :

40, 150, 375, 550, 15 000, 34 000,

150 000

. Wa tammawey wey ti kaatibi : 60,

230, 570, 4850, 27 000, 90 000, 54 000

Wala binde

- Kaatibi 20 000 ga sawa nda seefa tamma marje ?
- Kaatibi 345 000 ga sawa nda seefa tamma marje ?
- Seefa tamma 600 000 ga sawanda kaatibi marje ?
- Seefa tamma 2 000 000 ga sawanda nda kaatibi marje ?

day hay - neere hay - tun hay

a) darbay foo kaŋ faati n'a day, tun a ga kaatibi 3500 - kaatibi 250 taahay goo nooroo ra marje ti darbaa day hayoo ?

darbaa day hayoo ti :

$$\text{kaatibi } 3500 - \text{kaatibi } 250 = \text{kaatibi } 3250$$

adisi

$$\text{day hay} = \text{tun hay} - \text{almuŋakka}$$

b) Ramatu na gaaru foo day kaatibi 3000 a na a neere nda kaatibi 400 albaha marje ti gaaroo neere hayoo ?

gaaroo neere hayoo ti :

$$\text{kaatibi } 3000 + \text{kaatibi } 400 = \text{kaatibi } 3400$$

adisi

$$\text{neere hay} = \text{day hay} + \text{albaha}$$

c) haawa na hayni saaku foo day kaatibi 1600 a na kaatibi 50 bana saakoo zaakaa se marje no saakoo tun haawa ga ?

saakoo tun haawa ga

kaatibi 1600 + kaatibi 50 = kaatibi 1650
adisi :

$$\text{tun hay} = \text{day hay} + \text{almuŋakka}$$

albaha - kaŋyan

a) kadi na ŋukka turmi foo day kaatibi 2000 - a n'a neere kaatibi 2 600- marje ti kadi albahawoo ?

kadi albahawoo ti :

$$\text{kaatibi } 2\ 600 - \text{kaatibi } 2000 = \text{kaatibi } 600$$

adisi

$$\text{albaha} = \text{neere hay} - \text{day hay}$$

b) Zabba na wakisi turmi foo day kaatibi 2000 a n'a neere kaatibi 1800 marje nda zabba kaɗ ?

hinnaa kaɗ nda zabba kaɗ ti :

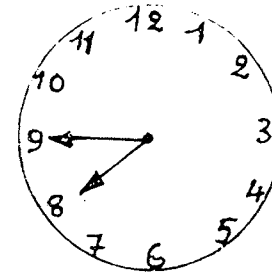
$$\text{kaatibi } 2000 - \text{kaatibi } 1800 = \text{kaatibi } 200$$

adisi :

$$\text{kaɗyan} = \text{day hay} - \text{neere hay}$$

Furari : wa hinnawey kaɗ ga hima daɗ tonbey dogey ra.

tun hay	almu šakka	day hay	neere hay	albah	kaɗyan
-	-	k 1600	k 2000	-
-	-	k 2450	k 450	-
-	-	k 345	k 210	-
k 2650	k 650	-	-	-
.....	k 375	K 2675	-	-	-



Leerawey bayraa

Montoro ga boro ga leera caw.

Montoro dumi hinka no ma boobo soɗo da. Woo kaɗ goo nda sanayaɗ kaɗ ga willi-ka-bere nda woo kaɗ se borey ga nee miti-miti.

War ma bay kaɗ :

- ler 24 ti jirbi foo ; maanaa ti cijinoo nda zaaroo cere ra ;
- miniti 60 bara leer foo ra ;
- segondu 60 bara miniti foo ra.

Sana alfaydanta hinza no boro ga doona ka dii ey.

Montoraa kaɗ ga sanawey goo.

- Sana duuraw wargaa no ma leerawey cebe. cewoo ga hanse ka yay.

- Sana kuku jinaa no ma minitey cebe. cewoo si tar.

- Sana kuku buunaa no ma segondey cebe. Cewoo ga hanse ka tar.

Nda boro ga baa ma leerawey bay ni mma :

- Sana duuraa guna. Lanbaa kaŋ tenje a goo ti leeraa, sanda guuru 8

- Sana kuku jinaa guna. Lanbaa kaŋ tenje a goo no ma minitey cebe kaŋ tonton leeraa ga ; sanda guuru 8 nda miniti 15.

- Sana kuku buunaa guna. Lanbaa kaŋ ga a goo no ma segondey cebe kaŋ goo minitey boŋ ; sanda guuru 8 nda miniti 15 nda second 5.

Takaa kaŋ nda leera ga cawandi miti-miti ga

- lanba jinaa kabe waawa here ti leeraa, sanda guuru 10.

- lanbaa kaŋ goo gamoo ra ti minitey,

sanda guuru 10 nda miniti 25.

- lanba koraa kabe gumaa here ti segondey, sanda guuru 10 nda miniti 25 nda segondu 30.

Kuuyan neesirey

Nda ni koy darbay day bitijoo wala yoofoo ra, meetar nda i ga a neesi ma ne

meetar surkumandoo ti woo : m

- meetar 10 kul ti dekammeetar foo (1) i ga a surkumandi : dam.
- meetar 100 kul ti ekitomeetar foo (1) i ga a surkumandi : hm
- faari kan nga kuuroo ti meetar 100 kul ir ga nee ekitomeetar 1 kuuyan bara a se.
- meetar 1000 kul ti kilomeetar foo (1) i ga a surkumandi : km

nda boro hun buram ka koy kunduga kul kilomeetar 5 no ni ga i dira.

meetar beene neesirey			meetar
kilomee- tar (km)	ekitomee- tar (hm)	dekamee- tar (dam)	m
1	10	100	1000

- kilomeetar 1 kul ti m 1000 =
dam 100 = hm 10

- ekitomeetar 1 kul ti m 100 = dam 10

- dekammeetar 1 kul ti m 10.

meetar marje bara dekammeetar 3 ra ?

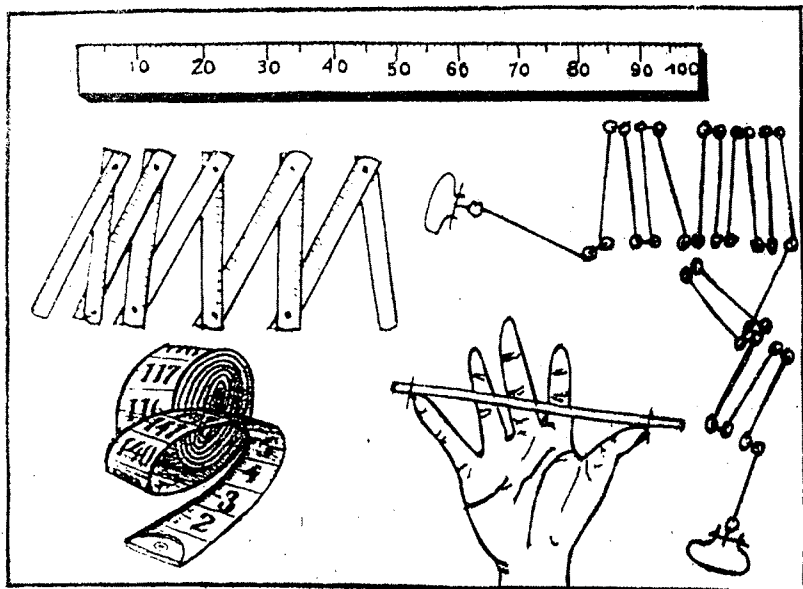
meetar marje bara ekitomeetar 2 ra ?

meetar marje bara kilomeetar 5 ra ?

meetar 400 ti dekammeetar marje ?

dekameetar 60 ti ekitomeetar marje ?

ekitomeetar 50 ti kilomeetar marje ?



Kuuyan neesirey : meetar nda nga beene neesirey

Ir alaada kuuyan neesirey ti kanbe nda sunbay. Ir doona ka nee kaŋ meetar jere ti kanbe foo. Amma ir ga bay kaŋ woo ga hin ka goro a mana tee zama borey kul kanbey si sawa kuuyan.

Woo se nda boro ga darbay day kul meetar nda i g'a neere ma na.

Garam beene neesirey						Garam (g)
kilozenberrey ton	kilozangey	kilowoyey	kilogram kg	ekitogram hg	dekagram dag	
1	0	0	0		1	0
			1	0	0	0
1	0	0	0	0	0	0

- kilogram 1 = garam 1000 = dekagram 100 = ekitogram 10
- ton 1 kilogram 1000
- dekagram 1 = garam 10
- ekitogram 1 = garam 100 = dekagram 10
- garam marje bara kilogram 1 ra ?
- garam marje bara kilogram 8 ra ?
- kilogram marje bara ton 1 ra ?
- kilogram marje bara ton 5 ra ?
- kilogram marje bara ton 10 ra ?

Meetar beene neesirey

- Meetar
- Dekameetar (dam) = meetar 10 (m 10)
- Ekitomeetar (hm) = meetar 100 (m 100)
= dekameteetar 10 (dam 10)
- kilomeetar (km) = meetar 1000 (m 1000)
= dekameteetar 100 (dam)
meetar 100 = ekitomeetar 10 (hm 10)

Meetar nda nga beene neesirey			Meetar m
kilomeetar (km)	ekitomeetar (hm)	dekameetar (dam)	
2	35	120	5000

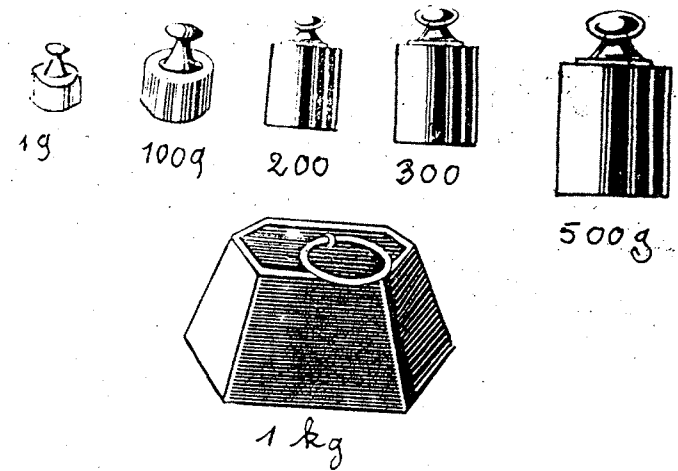
Laasaabu : guuru šen foo goo no kaŋ nda i ga laboo neesi. Nga kuuyanoo ti meetar 10 : woo se i ga nee a se dekameteetar. Šen folloku ga hin ka bara nda meetar 20. I ga nee a se dubulu dekameteetar.

Wa neesirey wey sawandi :

km 2 = m ... ; dam 5 = m... ; hm 7 = m,
hm 6 = dam...; km 5 = dam...

Cawkaw foo kul ma wey sasawandi :

km 8 nda m6 = m... ; dam 1 nda m5 = m...
km 4 nda dam 7 = m..., km 2 nda hm 5 nda
dam 4 = m..., km 9 nda hm 6 = m ...



Tigay neesirey garam nda nga beene neesirey :

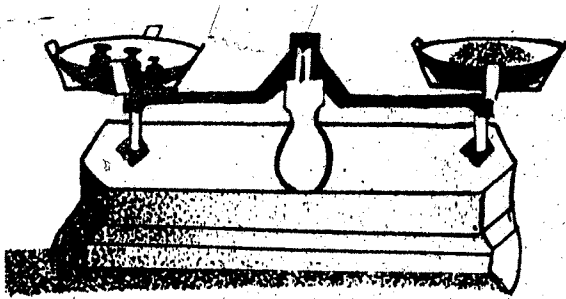
a) Nda boro ga attay neere garam nda ni ga neesi. Tigay neesirey kaŋ ir ga boobo ka i ka goy kul ikaccaa ti **garam**.

Garam surkumandoo ti g :

- garam (g) 1000 foo ti kilogaram 1 (kg)
- kilogaram (kg) 1 = garam 1000

b) nda ni ga baa ka moo neere basikiloo bon ni g'a jisi hala ma duu nga kilowey hinnaa.

Kilogaram dungurandoo ti **kilo**, nga surkumandoo ti **kg**.



Tijay neesiyan balansoo ga

Cawandikaa ma tijay neesirey ceba, sanda :

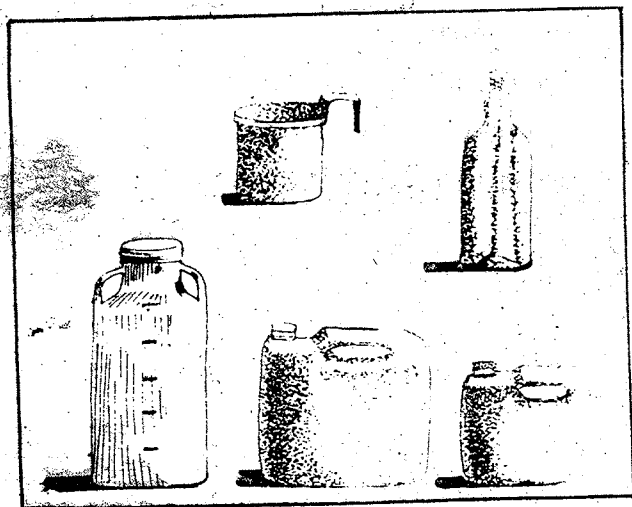
kilo 1, hg 2, hg 1, dag 2, dag 1, g2, g1

- a ma nee cawkey se i ma balansoo guna soŋo kaŋ haya kul sii a boŋ, cawkey ma sulbaa kaŋ ga hayey tiŋaa bayrandi laasaabu.

I ga dii kaŋ a si kala kaadarango game binda ra.

- cawandikaa ma hantum tiirayan fur palatowoo boŋ, dogoo ra a ga siiri nda ganda
- a ma tijay neesiriyay fur palato foo boŋ hala sulbaa ma kay lanbaa ga kaŋ ti hantumtiirawey tiŋaa a ga hin ka ti garam 300, wala garam 350, wala garam 400. Nda haya no kaŋ si hin ka neesandi kala jinay ra ; a tilasu kala boro ma jinaa koonoo neesi ka nga tiŋaa bay. Nda jinaa nda hayaa kaŋ ra a goo tiŋaa bayrandi kul boro mma jinaa wanoo kaa tijay timmantaa ra ka duu haya neesantaa wanoo.

Gaabandi : tijay neesiriyay ga bara kaŋ badila bara korey ga. Nda maamalakaa si laadir kul a ga hin ka badilaa din gaasu hala neesiroo tiŋaa ma jecce. Woo se nda i ga neesa ma na kul ma guna wala haya mana hun badilaa ra.



Jinay kuna neesirey : liitar nda nga beene neesirey :

Liitar woo affoo de no. Liitar beeri nda ikaccu sii liitar foo hari tinjaa ti kilo foo.

Adisi liitar jere hari tinjaa ga sawa nda kilo jere wala garam 500. Di wil, waa jii : wey kul liitar nda i ga neerandi nda a gar i mana ti hinna kacuu.

Liitar beene neesirey :

- dekaliitar (dal) = liitar 10 (l.10)
- ekitoliitar (dal) = liitar 100 (l.100)

Ekitoliitar (hl)	dekaliitar dal	Liitar (l)
1	0	0
	2	0
		8
5	6	0

Laasaabu : gazuwal, esens, wala dilwii tukkuyan goo no kan liitar 20 no i g'i zaa. Saadi dekaliitar 2 wala dubulu dekaliitaryan no.

Bargey kan ir ga boobo ka dii ey liitar 200 no i g'i zaa. Saadi ekitoliitar 2 wala dubulu ekitoliitaryan no.

Wa neesirey wey sasawandi :

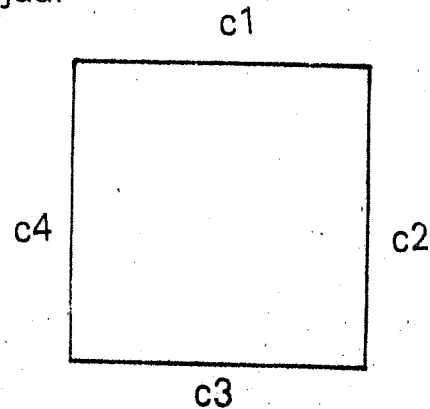
dal 7 = l ... ; hl 8 = l ... ; dal ... ; l 20 = dal... ;
 hl 35 = l... ; dal 16 = l ... hl 47 = dal... ;
 l 64 + hl 7 = l ...

Cawkaw foo kul ma wey sasawandi :

dal 5 = l... ; hl 31 = l ... ; hl 3 + dal 2 = l... ;
 hl 7 = dal.. ; l 2600 = dal ... hl 18 - h 15 = l...

Kaare

Isa saddinjaa goo nda kanje sasawanta taaci nda ceraw sasawanta taaci. Adisi kaare ti isa saddinjaa.



Ceraw taacaa ti wey ir n'a daaru cere mee ga.

$$c1 + c2 + c3 + c4$$

adisi wangaroo ti = ceraw foo + ceraw foo + ceraw foo + ceraw foo wala binde = ceraw foo x 4

Furari : maazu hugoo ceraw taacaa affoo kul kuuyanoo ti meetar 5. Marje ti maazu hugoo wangaroo.

Maazu hugoo wangaroo ti.

$$\text{Meetar } 4 + \text{meetar } 4 + \text{meetar } 4 + \text{meetar } 4 = \text{meetar } 16$$

$$\text{wala} = \text{meetar } 4 \times 4 = 16 \text{ meetar } 16$$

Kaare = Ceraw foo bayraa

Kaare ti Mada saddinjaa. Nga wangaroo kul ti meetar 48 meetar marje ti Mada saddinjaa ceraw foo kul ?

Waatoo kanj ir ga bay kanj kaare cerawey kul ga sawa takaa kanj ir g'a tee ti woo = meetar $48 : 4 =$ meetar 12

Mada saddinjaa ceraw foo kul ga sawa nda meetar 12.

Kaare ceraw foo = wangaroo : 4

Furari :

- 1 - Kaare ti Ali windoo. Nga wangaroo ti meetar 120. Marje ti ceraw foo ?
- 2 - Kaare ti Hamma bari kaloo. Nga wangaroo ti meetar 80. Marje ti cewaw foo ?
- 3 - Kaare ti Haalidu faaroo. Nga wangaroo ti meetar 1200 marje ti cewaw foo ?
- 4 - Karjime aruggaa kaare no. Nga wangaroo ti meetar 8400. Marje ti ceraw foo ?

Kaare gandoo neesirey

Nda ni ga baa ka farru kanj kaare no meetar gandey hinnaa bay kul ni mma ceraw

foo meetarey hinna taabu nda ngi boŋ.

1 - Kaare kaŋ meetar foo ti nga ceraw foo kul, gandoo hinnaa ti woo : meetar 1 x meetar 1 = meetar gande 1 (m) $m1 \times m1 = m^2$, m 1 meetar gande surkumandoo ti : m^2 .

2 - Kaare kaŋ meetar 10 ti nga ceraw foo kul, gandoo hinnaa ti woo : meetar 10 x meetar 10 = meetar gande m^2 100 = m meetar gande 100 = dekammeetar gande 1 (dam²) wala ar 1.

3 - Kaare kaŋ meetar 100 ti nga ceraw foo kul, gandoo hinnaa ti woo meetar gande 100 x meetar 100 = meetar gande 10000. Meetar gande 1000 = ektomeetar gande 1 (hm²) wala ekitar 1.

ektomeetar kaare hm = ha		dekameetar kaare dam = ar		meetar kaare m = ca	
iwowey	affawey	iwowey	affawey	iwowey	affawey
	1	0	0	0	0

ekitar 1 = ar 100 m 10000

ar1 = m 100 = ca 100.

Laasaabu : cee zangu no ganda neesirey ga cere taabu.

Furari :

1 - meetar gande marje bara bari kali kaare se kaŋ goo nda meetar 12 ceraw ?

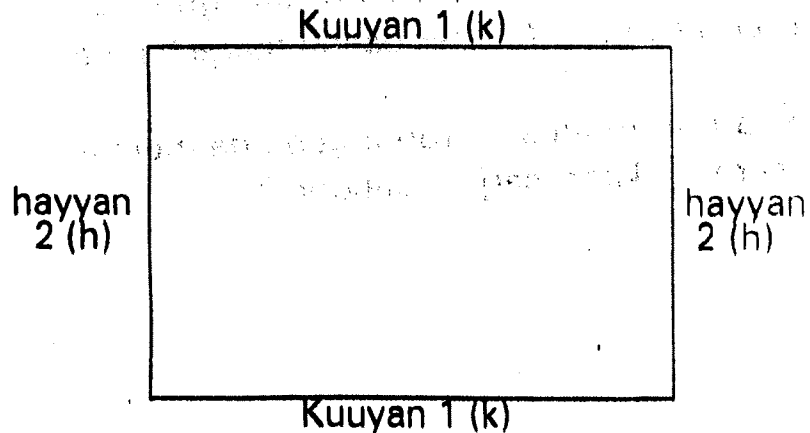
2 - ar marje ti saddiŋa kaŋ kaare no, a goo nda meetar 24 ceraw ?

3 - Muusa windoo kaare no kaŋ goo nda meetar 30 ceraw. Meetar gande marje bara a se ?

4 - Kaare ti Summa faaroo a goo nda meetar 200 ceraw, ekitar marje ti gandoo ?

Muulubi :

Faadi saddin̄aa goo nda kanje sasawanta taaci, amma cerawey kan ga tenji no ma sawa kuuyan. Adisi muulubi ; ti Faadi saddin̄aa siifayanoo.



Ir ma ceraw taacaa daaru.

Kuuyan (k)	hayyan (h)	kuuyan (h)	hayyan (h)
1	2	1	2

Adisi wangaroo ti : kuuyan + hayyan + kuuyan + hayyan.

Furari : Sagada hugoo kuuyanoo ti meetar 7, nga hayyanoo ti meetar 4 marje ti Sagada hugoo wangaroo ?

Sagada hugoo wangaroo ti :
Meetar 7 + meetar 4 + meetar 7 + meetar 4 = meetar 22.

Wala = meetar 7 + meetar 4 x 2 = meetar 22.

Muulubi : ceraw foo bayraa :

1 - Faari foo goo no kan nga wangaroo kul ti meetar 24 ; nga kuuyanoo hinne ti meetar 7. Marje ti nga hayyanoo ?

. wangaroo jeroo no ir ga jin k'a ceeci ; sanda kuuyan foo nda hayyan foo cere ra.

. wangaroo jeroo ti : meetar 24 : 2 = meetar 12

. hayyanoo ti : meetar 12 - meetar 7 = meetar 5

Wangaroo jeroo - kuuyanoo = hayyanoo :

2 - Windi foo wangaroo ti meetar 70, nga hayyanoo ti meetar 15 marje ti nga nga kuuyanoo ?

. kuuyanoo ti = meetar 35 - meetar 15 = meetar 20. Windoo kuuyanoo ti meetar 20.

Wangaroo jeroo - hayyanoo = kuuyanoo :

Furari :

1 - Wangaroo ti meetar 120... hayyanoo ti meetar 25 marje ti kuuyanoo ?

2 - Meetar 40 ti kuuyanoo amma wangaroo kul ti meetar 150 marje ti hayyanoo ?

Muulubi gandoo neesirey :

Nda ni ga baa ka faru kan muulubi no meetar gandey hinnaa bay kul ni mma kuuyanoo

meetarey hinnaa taabu nda hayyanoo meetarey hinna.

Sanda = kuyanoo x hayyanoo = gandoo.

1 - Badu hugoo kuuyanoo ti meetar 15, nga hayyanoo ti meetar 10 marje ti gandoo ?

meetar 165 x meetar 10 = meetar gande 150.

2 - Agali janboo kuuyanoo ti meetar 120, nga hayyanoo ti meetar 60 marje ti gandoo ?

Meetar 120 x meetar 60 = meetar gande 720. Agaali janboo gandoo m 720 wala ar 7 nda m 20.

3 - Seydu hayni faaroo kuuyanoo ti meetar 400, nga hayyanoo ti meetar 150. Marje ti gandoo ?

meetar 400 x meetar 150 = meetar gande 60 000 wala ar 600 wala ekitar 6.

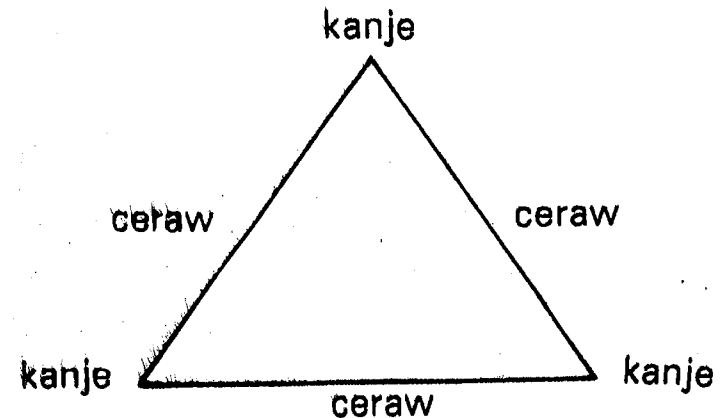
Furari :

Wa farrey wey gandey ceeci.

Kuuyaney	Hayyaney	Gandey
- m 12	m 6	m
- m 20	m 10	m
- m 80	m 70	ar
- m 130	m 100	ar
- m 150	m 100	ha
- m 270	m 250	ha

Kanje hinza = wangaroo nda Gandoo
kanje hinza kul ceraw hinza bara a se kan ga cere kubay.

kanje hinza muulu kanjekoy,
kanje hinza sasawanta.



Kanje hinza ti Alkuttu hugoo. **Nga cerawey neesirey** = meetar 8, meetar 4 nda meetar 3.

Meetar marje ti Alkuttu hugoo wangaroo ?

. Alkuttu hugoo wangaroo ti = m 8 + m 4 + m 3 = 15 m

. Alkuttu hugoo wangaroo ti meetar 15. Kanje hinza kul wangaroo mana ti kala nga ceraw hinzaa dimma tilmantaa.

Kanje hinza ti Almudu moo kaloo. A goo nda ceraw foo kan meetar 8 no. Almudu na zeeri serranta tee cereaa din ga ka duu kanjoo kan ga tenji nd'a. Muulu kanje hinka no zeeri

serrantaa nda cerea din n'i tee. Zeeri serrantaa kuuyanoo ti meetar 4.

Taka foo no Almudu g'a tee nd'a ga baa nga ma duu moo kaloo gandoo ?

Ir ma nee zeeri serrantaa se : serrandoo:

Ir ma nee caraa kaŋ a g'a kubay se : ceraw suubanta.

Hala ir ga baa ir ma duu Almudu kaloo meetar gandey hinna takaa woo no ir g'a tee: ceraw suubantaa kaŋ ti m 8 no ir g'a taabu nda serrandoo kaŋ ti m 4. Jina ir ma dimmaa kaŋ duwandi zemna nda 2.

$$m 8 \times m 4 = m 32$$

$$32 : 2 = m 16$$

Almudu kaloo gandoo ti m 16 nda ni baa, ni ga =

- Ceraw suubantaa jeroo kaŋ ti 4 ka serrandoo taabu kaŋ ti 4.

Ni ga duu $4 \times 4 = 16$. Wala binde :

- Serrandoo jeroo kaŋ ti 2 ma ceraw suubantaa taabu kaŋ ti 8.

$$Ni ga duu $2 \times 8 = 16$$$

Wa kanje hinzawey wey gandey ceeci.

Ceraw suubantey	Serrandey	Gandey
m 24	m 14	m...
m 30	m 15	m...
m 80	m 90	m...
m 350	m 400	m...