Waalde daraniinde fulfulde nder Burkina Faso

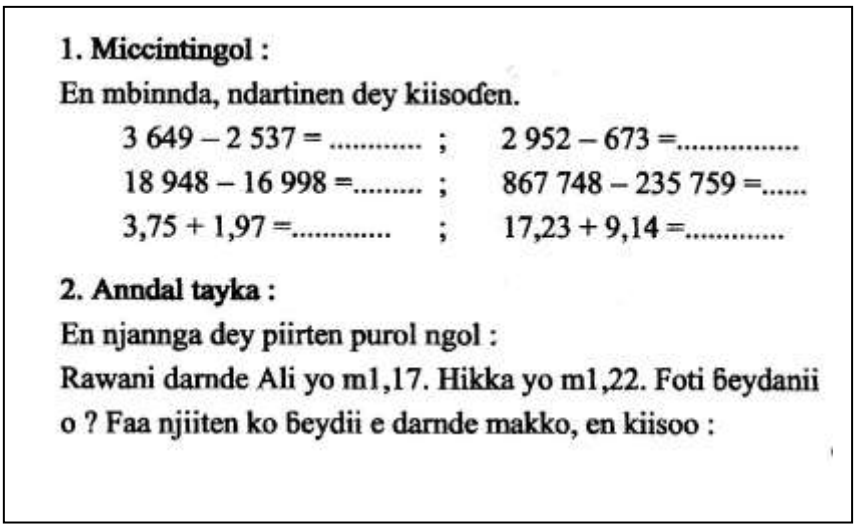
Hiisa

Manuel d'apprentissage des mathématiques en fulfulde

Partie I

Jannde/Leçons 1 à 18 (pages 2 à 33)

*Voir suite **Hiisa - Partie II** Jannde 19 à 33 (pages 34 à 68)*



1. Miccintingol :

En mbinnda, ndartinen dey kiisoɗen.

3 649 – 2 537 = ... ; 2 952 – 673 =.....

18 948 – 16 998 =..... ; 867 748 – 235 759 =.....

3,75 + 1,97 =..... ; 17,23 + 9,14 =.....

2. Anndal tayka :

En njannga dey piirten purol ngol :

Rawani darnde Ali yo ml,17. Hikka yo ml,22. Foti ɓeydanii o ? Faa njiiten ko ɓeydii e darnde makko, en kiisoo :

SEDELAN
Service d'Edition en Langues Nationales
Koudougou, Burkina Faso
BurkinaDoc de Mil'Ecole : Textes en Fulfulde

Hiisa - Partie I

Manuel d'apprentissage des mathématiques en fulfulde

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Issu du livret imprimé en 2010 également par **SEDELAN**

Dewte suudu baaba

Puɗɗirɗum

Ndee dewtere winndaakanaa faa hoyna jannginde hiisa. Na nde walla jannginoowo e njanngoowo fu.

Ammaa ko ɓuri semmbineede e mayre, yo laabi mawɗi mballooji jannginoowo faa heɓa yiitana hoore muuɗum hakkillooji njannginirɗi.

Duum waraynaa fiirtude kee dewtere nde, hakkilantaa anniyaaji tindinirɗi kewɗi, hono, jannde fu e tindinirde muuɗum.

Dewtere nde hiisaakinaa pecce tati ngonɗe ley jannde hiisa : janɗe hiisa adaduuji, janɗe fonndugol e janɗe joometiri ; feccere fu, e tindinirde wootere.

Na miilaa kee ɗum tilsinanan jannginoowo, tewtande hoore muuɗum anndal faa yiita hakkillooji janngingol. Na ɗum woodi tiiɗorma seeɗa, ammaa na ɗum walla jannginoowo sanne ley tewtugol anndal e hakkillooji golle muuɗum.

Dow innde suudu baaba, na mi joota mbinnduɓe dewtere nde : Abubaakaar Bari, Saaliw Boli e walliiɓe maɓɓe fu.

Hooreejo Waalde daraniinde fulfulde

Iisaa Jallo

Jannde hiisa e fonndugol

A. Beydugol e ɓuytugol

Ner hiisa, en njanngan ko innditirtee "BEYDUGOL" e BUYTUGOL".

Faa jannginoowo jannde hiisa heɓa faamina njanngooɓe, sey rewa laabi laaɓinooji jannde faa wooɗa.

Banngal janngingol "ɓeydugol", jannginoowo artoto, laaɓina cuuɗi hiisa faa wooɗa. D Šum woni suudu gaale, suudu capanɗe, suudu keme e suudu ujunaaji hono nii :

28	7	3	4
ujunaaji	keme	capanɗe	gaale

O holla no "ɓeydugol" yahrata dey o dartina hiisa faa laaɓa, tawee suudu fu na senndii faa wooɗi hono ni :

	1	1	1	1	
	6	3	8	4	9
+		8	6	7	6
=	7	2	5	2	5

63 849 + 8 676 = 72 525

Soni ɗum hollitaama faa wooɗii, ndeen ko woni ley dewtere njanngooɓe fu na waawi reweede faa wooɗa.

Ley "ɓuytugol" du, laabi dowuuji ɗi kaani reweede, Dum woni hollitingol suudu gaale, suudu capanɗe, suudu keme, suudu ujunaaji.

123 408 – 68 519 = 54 889

	1	1	1	1	1	
	1	2	3	4	0	8
-		6	8	5	1	9
=	0	5	4	8	8	9

Ngaɗee njanngooɓe ngaɗa hiisaaji hono ɗi, faa heewa dow alluwal muɓɓen.

B. Fonndugol

Ko ɓuri waannude ley jannde "fonndugol", yo nawtoragol gollitirɗi ponndirɗi, hono : liiteraaji, meetereeji, gineeji teddeefi, fonndugol gese, piili muɓɓen maa njaajeefi muɓɓen.

Ko tiiɗi fu njanngooɓe mbawta golle hiisa : waylitingol ponndirɗi.

Do jannde hewti fu, sey haatimeere hollitoore mbayla ponndirɗi waɗee dey laaɓinee hono haatimeere panndirɗi rewtunde nde.

Haatimeere ponndirdi

km	hm	dam	m	dm	cm	mm
1	0	0	0			
	1	0	0			
		1	0	0		
			1	0		
			1	0	0	
			1	0	0	0

C. Jannde joometiri

Joometiri na haɓɓodii e golleeji kewɗi ley nguurndam meeɗen, dagu gese, nyiɓdi. Alla e ɗuum, jannginoowo hiisa fu, soni hewtii joometiri, sey hakkilana ko ɓuri tilsande njanngooɓe.

- njanngooɓe annda naykiɓɓal, piilol e njaajeefi muuɗum
- ɓe annda caawpotal , piilol e njaajeefi muuɗum.
- ɓe annda tatiwal, piilol muuɗum e njaajeefi muuɗum.
- ɓe annda targol, piilol muuɗum e njaajeefi muuɗum.

Janngingol ɗee kulle, na haani yowaade dow ko yimɓe nji'ata maa ko ngollirta hono : gese, cuudi, laawi, kokuuji.

Soni jannde joometiri yowoken dow ko hollitaa ɗum, na ɗum ɓeyda huynugol njanngooɓe, na saaboo dey ɓe paama faa laaɓa.

Jannde 1 : limoore

1. Dursu

En lima

en lima : 0 faa 9

en lima : 10 faa 40

en lima : 40 faa 80

en lima : 80 faa 120

en lima : 120 faa 160

en lima : 160 faa 200.

En limira

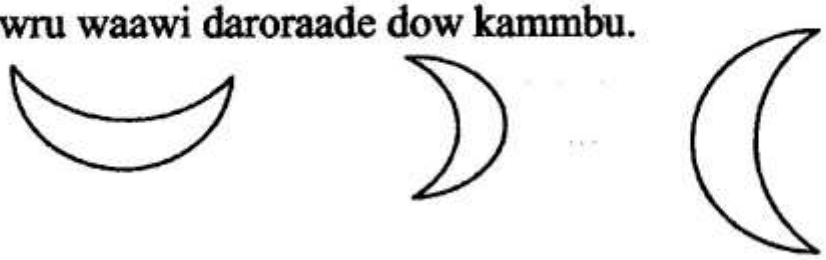
en limira 100/100 yuude 200 faa 1 000.

en limira 40/40 yuude 200 faa 600.

en limira 40/40 yuude 600 faa 1 000.

en limira gaɗa-gaɗa yuude 90 yaade 30.

En limira gaɗa-gaɗa 10/10 yuude 100 yaade o. En nata no lewru waawi daroraade dow kammbu.

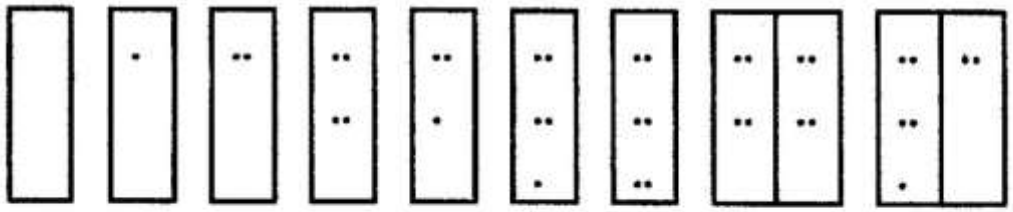


En ndiida

En diida diidi mbaaliidi 8

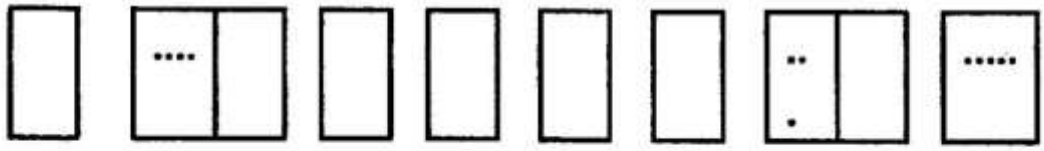
En diida diidi ndariidi 12

En nata dey maandinen ɗe limooje.



? ? ? ? ? ? ? ? ?

Ngaɗee toɓɓe kawrooje e adaduuji ɗi.



5 ? 7 9 3 6 4 ? 1 ?

Binndi

1.....

.....

.....

2.....

.....

.....

Jannde 2 : limoore cappannde (dursu)

1. Adaduuji 10 faa 90

En paama :

Noy sappannde heɓirtee ?

En ndaara no sappo (10) worri.

10 yo 9 + 1 ; 8 + 2 ; 7 + 3 ; 6 + 4 ; 5 + 5

Ley 10, 1 yo sappannde, o yo gaale hono ko jokkii ɗum.

.....	
s	**g**
1	**0**

s = sappannde
g = gaale

....	.
s	g
1	1

....	..
s	g
1	2

....	...
s	g
1	3

En njiita capanɗe e gaale ley adaduuji ndewtuɗi ɗi.

14 ; 15 ; 16 ; 17 ; 18 ; 19 ; 20 ;

32 ; 44 ; 56 ; 67 ; 70 ; 89 ; 98.

En taykoo no ɗi njaarata de nbinnden.

30 – 31 =

40 – 41 =

50 – 51 =

60 – 61 =

70 – 71 =

80 – 81 =

90 – 91 =

2. Pinirɗi

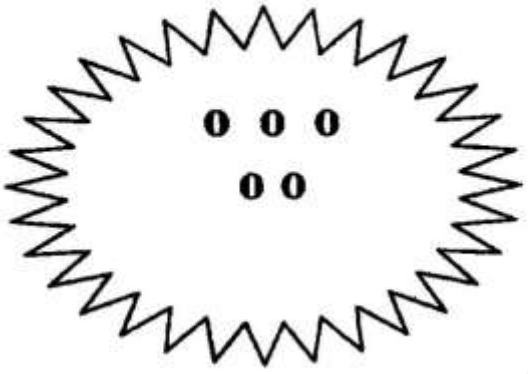
Njanngen dey mbinnden ndow alluwoy men :

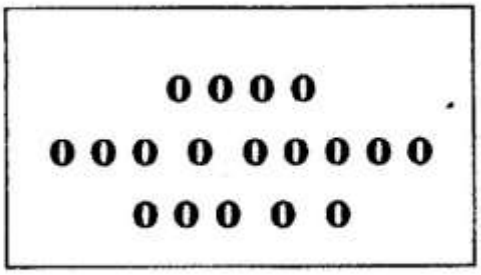
35 ; 60 ; 78 ; 28 ; 21 ; 35 ; 60 ; 44 ; 78 ; 53 ; 28 16.

En mbinnda :

11 ; 22 ; 33 ; 44 ; 55 ; 66 ; 77 ; 88 ; 99.

En mbinnda adaduuji kawrooji e nate ɗe.





Jannde 3 : Adaduuji ɗuude 100 yahade 1 000

En lima 10/10 yahade 100. Ley 100 yo capandɛ foti e gaale foti ? En taykoo :

c	g
10	0

Ko winndaa dow alluwal :

En lima, hemnde hemnde ɗuudɛ hemnde faa 1 000.

En njannga ko winndaa dow alluwal.

100 – 300 – 400 – 200 — 900 – 700 – 1 000 – 800.

En cottina dow alluwoy men ko winndaa ɗum.

Pinirdɛ

1. Kebbitee haatimeere nde. Kawrondinee keme e capandɛ faa kebon adaduuji.

	10	20	30	40	50	60	70	80	90
100	110								
200									
300									
400									
500									
600									
700									
800									
900									

2. En njannga dey mbinndiren e adaduuji.

Keme tati e noogay =.....

Hemnde e capandɛ jeegom =.....

Keme jeenay e capandɛ jeetati e jeegom =.....

Jannde 4 : Beydugol ngol walaa ndesa

1. Miccintingol :

Noy ɓeydugol maandinirtee e hiisa ? Ndey ɓeydugol waɗetee ley hiisa ? Noy capanɗe ɓeydirtee ?

2. Anndal tayka :

24 + 15 =..... ; 231 + 75 =.....

32 + 27 =..... ; 823 + 125 =.....

3. Pinirɗe

En mbinnda ndartinen dey, kiisoɗen dow alluwoy.

34 + 23 =.....; 247 + 232 = ...

61 + 26 =..... ; 312 + 283 =.....

	2	4
+	1	5
=		

	8	2	3
+	1	2	5
=			

4. Purol

Jom jawle na wondunoo e boofaaɗe 126. O yiilowoke o waartidi e boofaaɗe 63. Boofaaɗe foti o wondi ?

Maroowo na wondi e be'i 142 ; be'i 73 ndimii. Be'i foti o tawretee ?

Jannde 5 : ɓuytugol ngol walaa ndesa

1. Miccintingol :

Noy ɓuytugol maandinirtee ? (-)

Ndey ɓuytugol waɗetee ley hiisa ?

Noy capanɗe ɓuytirtee ?

2. Anndal tayka

En kiisoo ko rewtata ɗum dow alluwal.

57 – 25 =..... ; 438 – 226 =.....

88 – 38 =..... ; 789 – 357 =.....

En nbinnda ndartinen dey kiisoɗen dow alluwal.

3. Pinirɗe

En mbinnda, ndartinen dey

	5	7
-	2	5
=		

	8	8
-	3	8
=		

	7	8	9
-	3	7	7
=			

kiisoɗen, dow alluwoy

67 – 52 =..... ; 547 – 337 =.....

66 – 45 =..... ; 875 – 453 =.....

4. Purol

Lewru layyaaru njaagotoodo waddi Wagadugu baali 258. O sonnii baali 137. Baali foti o heddodii ? Connoowo gawri na wondi e bootooji 378. Gujjo wujjii o ɓootooji 66. Bootooji foti o heddodii ?

Jannde 6 : Sowugol ngol walaa ndesa nde sowoore nyiinde wootere

1. Miccintingol :

Noy sowugol maandinirtee ? Ndey sowugol waɗetee ley hiisa ? En kiisoroo hoore :

2 e 2 =..... ; 3 e 3 =..... ; 7 e 7=..... 9 e 9 = ... ;
3 e 3 e 3 =..... ; 7 e 7 e 7 =..... 11 e 11 e 11 = ...

2. Anndal tayka

Ko woni sowugol adadu ? Sowugol adadu nde ɗiɗi yo ɓeydonndirde adadu oon kile ɗiɗi ; hono : boofaaɗe 34 + boofaaɗe 34 yo boofaaɗe 34 faa nde ɗiɗi :

34 x 2 = 68 maa 34 nde 2 yo 68.

Nani no hiisa oon yaharata :

	3	4
x		2
=	6	8

3. Pinirɗe :

En mbinnda de kiisoɗen dow alluwoy.

24 x 2 =..... ; 11 x 5 =.....
22 x 3 =..... ; 124 x 2 =.....
14 x 2 =..... ; 211 x 4 =.....

4. Purol

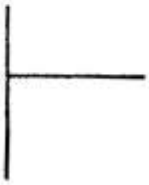
Sammbo na wondi e suukaaɓe 4. Nyannde juulde o hokki mono fu buuɗi 20. Buuɗi foti o hokki ɓe ?

Jannde 7 : Feccugol ngol walaa kedde, ngol feco-ore wondi nyiinde wootere.

1. Miccintingol

Noy sowugol maandinirtee ? (:) maa

Ndey sowugol waɗetee ley hiisa ?



En kiisoroo hoore :

8 : 2 =..... ; 16 : 2 =..... ; 15 : 3 =..... 18 : 6=.....; 24 : 4= .....

2. Anndal tayka :

Ko woni feccugol adadu ? Feccugol adadu yo senndirde ɗum pecce potuɗe. Hono : kayeeji 36 senndee hakkunde sukaaɓe 3

36 : 3 =

36	3
06	12
0	

Mono fu heɓan kayeeji 12.

3. Pinirɗe :

En mbinnda dey kiisoɗen

48 : 4 = ... ; 84 : 4 =.....

24 : 2 =..... ; 88 : 8 =.....

4. Purol :

Sukaaɓe 3 na njey ronude na'i 69. Na'i foti mono fu heɓata ? Golloowo yoɓaama buudi 1500. Balɗe 30 golliri. Buudi foti o yoɓetee nyannde fu ?

Jannde 8 : keme ɗiɗi yaha ujunaaji

1. **Miccintingol : banngal buuɗi**

- En anndita ceede nataaɗe ley ɗe
- En lima noogay noogay yiuwude 100 faa 1000.

Buuɗi hemnde **500 f** yo buuɗi noogay faa nde 5.

500 f = **100 f** **100 f** **100 f** **100 f** **100 f**

Buuɗi keme ɗiɗi **1000 f** yo buuɗi hemnde faa nde 2.
Buuɗi keme nay yo buuɗi keme ɗiɗi kile 2 maa buuɗi hemnde kile nay.

Buuɗi ujune **5 000 f** yo buuɗi keme ɗiɗi kille joy.

Buuɗi ujunaaji ɗiɗi **100 000 f** yo buuɗi ujune nde ɗiɗi.

10 f **250 f** **200 f** **500 f** **10 000 f**

2. Pinirɗe :

En mbinnda dey kiisoɗen :

b. 2 000 + b. 3 000 =.....

b. 7 500 – b. 2 300 =.....

b. 9 000 : 3 =.....

b. 2 000 x 2 =.....

3. Purol

Jaagotoodo cofe sonnii cofe 7. Cofal fu buuɗi 1000. buuɗi foti o heɓi ? Mbinndee buuɗi ɗiin e faransiire.

Jannde 9 : y'uude 1000 yahaɗe miliyon

1. Miccintingol

En njannga ko winndaa dow alluwal ngal :

800 – 200 – 900 – 760 – 490 – 1 000 – 1 231

En cuɓao adaduuji dey ngatten ɗi ley haatimeere.

ujunaaji	keme	Capanɗe	gaale
1 1	0 2	0 3	0 1

2. Anndal tayka

- 1 300 yo ujunere e keme 3, capanɗe e gaale ngalaa.
- 12 529 ujunaaji sappo e ɗiɗi, keme joy e noogay (capanɗe 2) e gaale jeenay.
- 23 0745 ujunaaji keme ɗiɗi e capanɗe tati e keme jeɗɗi e capanɗe nay e gaale joy
- 1 200 535 miliyon e ujunaaji keme ɗiɗi e keme joy e capanɗe tati e gaale joy.
- En gatta adaduuji ɗi fu ley haatimeere lehiire nde.

Suudu miliyonji			Suudu ujunaaji			Suudu gaale		
keme	capan ɗe	gaale ɓole	keme	Capan ɗe	gaale ɓole	keme	Capan ɗe	gaale ɓole
					1	3	0	0
				1	2	5	2	9
			2	3	0	1	4	5
		1	2	0	0	5	3	5

3. Pinirɗe

Mbinndiree yi'e adaduuji ko rewtata ɗum.

- Ujunaaji jeenay e keme jeɗɗi e capanɗe jeɗɗi e joy=
- Ujunaaji sappo e tati e keme jeetati e capanɗe joy =
- Ujunaaji keme tati e capanɗe nay e keme jeenay =
- Ujunaaji keme jeetati e noogay e jeetati e keme nay e capanɗe tati e joy =
- Miliyonji ɗiɗi e ujinaaji keme joy e capanɗe jeetati e jeegom e keme jeɗɗi e capanɗe joy.

Ngaɗee haatimeere dey ngatton adaduuji ndewtooji ɗi ley mayre :

8 665 17 543 264 875 642 521 4 668 057.

Jannde 10 : Yuɓɓe fondugol

Meetere e dekameetere

1. Miccintingol :

Ko tayeere fonndirta leppi muudum ? meetere

Ko ndemoowo fondirta ngesa muudum ? dekameetere.

Hannden en njanngan meetere e dekameetere.

Jannginoowo warda meetere, dekameetere e ponndirdi godɗi faa hannden.

2. Anndal tayka :

- En njiita indɗe ponndirdi di jannginoowo waddi di.
- Ko gootel fu gollirtee ?
- En ponndira ponndirgal meniije e diidirgal alluwal. Ponndirgal meniije yo meetereeji didi.
- Ponndirgal callalol yo meetereeji noogay.
- Meetereeji sappo won dekameetere
- Callalol men yo dekameetere

3. Pinirɗe :

- En ponndira e meetere : alluwal, junndeefi suudu jannde, njaajeefi suudu jannde, ...
- En ponndira callalol : taliyaare.

Jannde 11 : Beydugol e ɓuytugol ngol ndesa

1. Miccintingol

Hiisa hoore :

17 + 12 = ... ; 22 + 14 =.....

23 + 16 = ... ; 26 – 13 =.....

28 + 12 =.....

En mbinnda, ndartinen dey kiisoɗen dow alluwol.

146 + 23 =..... ; 976 – 552 =.....

153 + 128 =..... ; 2 583 – 1 272 =.....

2. Anndal tayka

		1	
	4	2	8
+	6	5	3
1	0	8	1

	1	1	1
	1	7	8
+		8	4
=	2	6	2

Beydugol ngol ndesa yo nii yaharata.

	4	6	2	
-	2	7	5	
=	1	8	7	

	1	5	3	7
-		2	8	9
=	1	2	4	8

3. Pinirɗe :

Mbinnden, ndartinen ɗe kiisoɗen.

Beydugol :

544 + 328 =.....

1 748 + 875 =.....

3 842 + 2 578 =.....

4 575 + 655 =.....

275 + 350 + 425 =.....

Buytugol :

297 – 177 =.....

900 – 548 =.....

1 683 – 886 =.....

3 237 – 1 366 =.....

Purol :

Penndo yehii luumo. O soodii gude buuɗi 900, paɗe buuɗi 230. O soodii peyre e kootonɗe buuɗi 675. Buuɗi foti o nyaami ? So buuɗi 2000 o wondunoo, buuɗi foti o heddorii ?

Jannde 12 : Feccugol ngol nyiiyre ɗiɗi e sowoore

1. Miccintingol :

En kiisoroo hoore e hoore.

7 x 10 = ... ; 23 x 10 =.....

45 x 100 =..... ; 103 x 100 =.....

129 x 100 =.....

En mbinnda dey kiisoɗen.

412 x 3 =..... ; 220 x 4 =.....

2. Anndal tayka

En ndartina dey kiisoɗen.

		3	6	6
x			1	5
	1	8	3	0
	3	6	6	
=	5	4	9	0

			4	2	8
	x			5	3
		1	2	8	4
	2	1	4	0	
=	2	2	6	8	4

3. Pinirdi :

Mbinnden, ndartinen dey kiisoɗen.

240 x 27 =..... ; 2 403 x 51 =.....

118 x 16=..... ; 4 635 x 65 =.....

4. Purol :

Jannginoowo soodanii njanngooɓe dewte 120. Dewtere fu yo ɓuudi 45. Buudi foti dewte ɗe kawrata ?

Jannde 13 : Feccugol ngol nyiiy'e 2 e feccore maa ko ɓuuri noon

1. Miccintingol

En kiisoroo hoore e hoore :

200 : 4 = ... ; 500 : 4 =.....

1 000 : 5 =..... ; 5 000 : 50 =.....

En mbinnda, ndartinen dey kiisoɗen.

3 000 : 2 =..... ; 650 : 5 =.....

3 025 : 5 =..... ; 5 950 : 7 =.....

2. Anndal tayka

En kiisoo dow alluwal.

1080	24
120	45
00	

1438	57
298	25
13	

3. Pinirɗe :

En ndartina dey kiisoɗen.

6 397 : 14 =..... ; 2 780 : 12 =.....

20 346 : 30 =..... ; 41 204 : 60 =.....

29 750 : 34 =..... ; 53 810 : 73 =.....

4. Purol :

Njaagotoodo soodii kaddule 12, buudi 5 160. Foti won ko kaddungal fu soodaa ? O sottii kaddungal fu buudi 600. Ɓ uudi foti o heɓi. Hiisa tinu makko.

Jannde 14 : yuɓɓo fonndugol

Desimeetere (dm) santimeetere (cm) milimeetere (mm).

1. Miccintingol

Ko meetere gollirtee ?

Dekameetere yo meetereeji foti ?

Ko dekameetere gollirtee ?

En kiisoo :

dam 2 = m..... ; dam 3 = m.....

m 40 = dam.....; m 60 = dam.....

Na on anndi ponndirɗi goɗɗi faa hannde ?

2. Anndal tayka :

En tiima meetere faa wooɗa. Pecce mawɗe foti ngoni ley meetere ? pecce 10.

Noy feccere wootere wi'etee? Desimeetere (dm)

En tiima desimeetere faa wooɗa. Pecce foti ngoni ley desimeetere ? pecce 10.

Noy feccere wootere wi'etee ? santimeetere (cm)

En lima santimeetiriiji ngondi ley meetere fu.

Yo santimeetiriiji 100 ngoni ley meetere.

- En tiima sentimeetere dow diidirgel dewte. Pecce foti sentimeetere wondi ? pecce 10.
- Noy feccere fu wi'etee ? milimeetere.
- Milimeetereeji foti ngoni ley desimeetere ? 100.
  Milimeetereeji foti ngoni ley meetere ? 1 000.

En diida haatimeere fonndirdi.

dam	m	dm	cm	mm
1	0	0	0	0
	1	0	0	0
		1	0	0
			1	0

3. Pinirdi

Wattitingol :

dm 13 = cm.....
m 2 = cm.....
dm 4 = mm.....
cm 20 = mm.....
m 25 = cm.....

En mbinnda adaduuji ndewtooji di ley haatimeere :

mm 2 075 ; dm 13 ;
cm 150 ; m 17 ; dm 850.

Jannde 15 : Yuɓɓo fonndugol

Ektomeetere (hm) e kilomeetere (km)

1. Miccintingol :

Hiisa hoore e hoore :

m = cm..... ; m = mm.....

m 2 = dm..... ; dm 20 = mm.....

dam 5 = m..... ; cm 7 = mm.....

2. Anndal tayka :

Boggol ponndirteengol gese yo meetereeji foti ?

En ponnda meetereeji 100 dow laawol.

Noy meetereeji hemnde ɗi mbi'etee ?

Hakkunnde wuro e wuro, ɗume fonndirtee ?

Kilomeetere yo eketomeeteriiji foti ?

Kilomeetere yo dekameeteriiji foti ?

Kilomeetere yo meeteriiji foti ?

Km yo m 1000

Km yo dam 100

Km yo hm 10.

Ndelle kiisee dam yo m foti ? Hm yo dam foti ? dam yo m foti ?

En diida haatimeere fonndirdi.

km	hm	dam	m	dm	cm	mm
1	0	0	0			
	1	0	0			
		1	0			
			1	0		
			1	0	0	
			1	0	0	0

3. Pinirde :

En mbattita ko rewti dum :

km 3 = m ..... ; hm 2, dam 4 em 2 = ...

hm 2 e dam 3 = m....; hm 4 e m 5 = m.....

km 4, hm 1 = dam.....

En kiisoo dow alluwoy meeden :

hm 7 + hm 5 = km..... hm.....

dam 8 e m 9 + dam 13 e m 7 = m.....

km1 hm 26 – hm 17 = km..... hm.....

En kiisoo dow alluwoy meeden :

m 31 = cm..... ; cm 7 500 = m.....

dam 14 e m 2 + hm 7 e dam 8 = m.....

hm 9 dam 7 e m 7 – dam 13 e m 9 = m.....

m 700 + m.....= km 1

m..... + dam 8 = hm 1.

Jannde 16 : Joometiri

Coɓɓuli

1. Miccintingol

En ndiida dow alluwal diidi ndartiiɗi, pukkiiɗi.

Dartiingol palingol	pukkiingol	_____

2. Anndal tayka

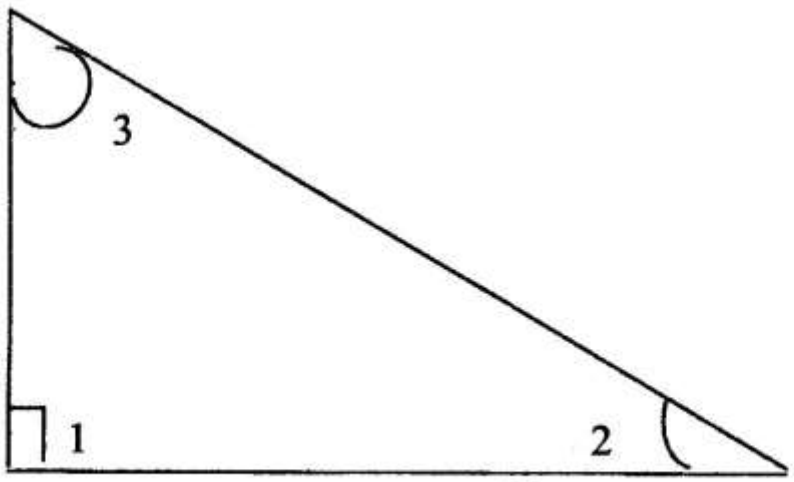
En ndaara ekkeer, focciiɗi foti wondi (3). En limta ɗi dey kollen ɗi.

En hoornana coɓɓuli ekkeer.

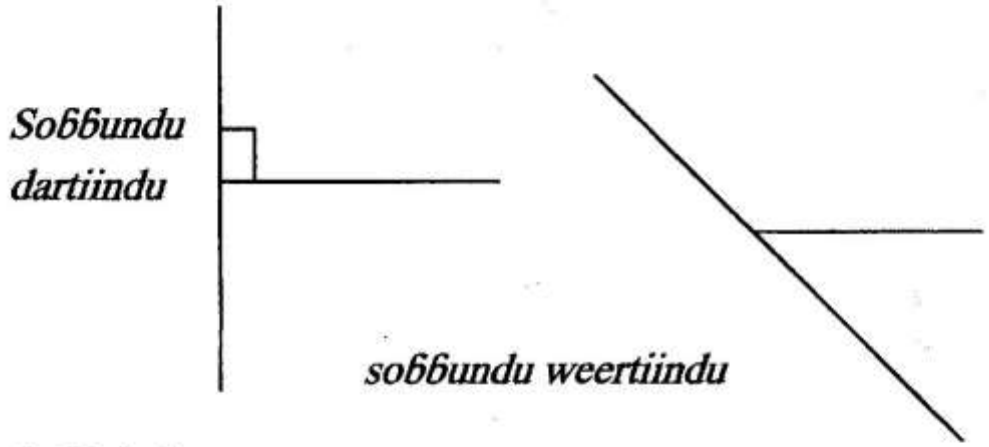
Coɓɓuli foti ekkeer wondi ?

Na ɗi poti na ?

En ndiida coɓɓuli ekkeer dey ndaaren no ɗi ceediri.



- So66undu ndule 6uri mawnude ?
- En innditiran ndu so66undu dartiindu.
- Co66uli keddiidi din 6uri famdude (see6ude) yo co66uli cee6udi di mbi'etee.
- En diida so66undu 6urndu dartiindu weertaade.



3. Pinirde :

En njiita ley janngirdu kulle ngonndude co66uli diin.

En mballitoroo ekeeriiji dey ndiiden dow dewte co66uli ndartiidi, cee6udi e mbeertiidi.

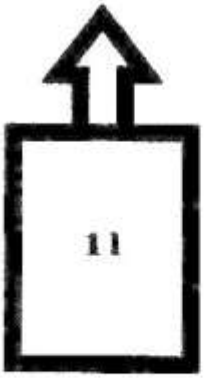
Jannde 17 : Fonndirdi keewki liitere, dekaliitere, eketoliitere

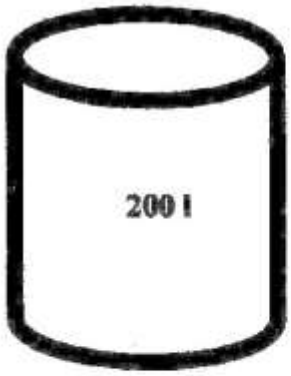
1. Huynugol :

Ko nawtortoden ley etugol kosam, petorol, nebam, esansi e ko nanndi e muudum ?

2. Anndal tayka :

En njiita inde etirde de : l





En etira keewki majje e liitere :

Noy bidon mo liitereeji 10 wi'etee ? dekaliitere (dal)
Noy bidon mo liitereeji 20 wi'etee? dal 2
Noy barikki mo liitereeji 100 wi'etee ? ektoliitere (hl)
Noy barikki mo liitireeji 200 wi'etee? eketoliitereeji 2.
En ngadda haatimeere ponndirdi keewki.

hl	dal	l
	1	0
1	0	0

3. Pinirde

En mballitaroo e haatimeere dey mbayliten ko rewti dum :

dal 3 =.....l ;

137 = dal.....l.....

h 15 = dal.....

da 17 = l.....

h 15 e dal 2 = l.....l

Kebbitee :

l 148 = hl 1 e l.....

l 250 = hl..... e dal.....

4. Purol

Jaagotoodo na wondi e bidonji esansi.

Bidonji dal 5, bidonji hl 4 e barikkiooji l 200.

Liitereeji foti esansi o wondi ?

Jannde 18 : Fonndirɗi keewki

Desiliitere (l) santiliitere (cl) / e mililiitere (ml)

1. Miccintingol :

dal = 1 ..... ; hl = 1.....

dal 4 = 1..... ; hl 5 = dal..... ;

hl 2 = 1.....

2. Anndal tayka :

Na on anndi etirɗi ɓurudi liitere famɗude na ? limtee ɗi.

En ponnda liitere ndiyam dey peccen ɗam faa fota nokkuuje sappo.

Noy feccere meetere sappoɓal wi'etee ? E feccere sappoɓal liitere le ?

En ada etirgel desiliitere. En ponndangel dey ngatten ley liitere. Nde foti ngel heɓɓinta liitere ?

Liitere yo desiliitereeji 10 (dl 10)

1 l = dl 10.

Sini en peccii desiliitere ndiyam nde sappo, noy feccere sappoɓal heɓaande nde wi'etee ?

1 l = 100 cl.

Sini en peccii sentiliiteere ndiyam wo'tere nde 10, noy feccere wootere fu noddirtee ?

cl 1 yo ml 10 ; dl 1 yo ml 100 ; l 1 = ml 1000.

En ngaɗa haatimeere fonndirde keewki.

hl	dal	l	dl	cl	ml
	1	0			
1	0	0			
		1	0		
		1	0	0	
		1	0	0	0

4. Pinirɗe

En mballitoroo e haatimeere dey kebbiten ko rewti ɗum.

l 575 = hl..... dal..... l.....

l 134 = hl..... dal..... l.....

l25 = dal..... cl..... ml.....

d l7 = cl..... ml.....

Kebbitee ko rewti ɗum.

dl 15 = ml..... ; ml 700 = dl.....;

cl 840 = dl..... ;

cl 436 = dl.....cl..... ; dl 5 = l.....

5. Purol :

Ley jeɗɗiire, Ali sippii kosam bidooji hl 2 e dal 7.

Liitereeji kosam foti o sippi ? liitere fu yo buuɗi 70.

Hiisa buuɗi Ali ley jeɗɗiire.

Voir suite **Hiisa - Partie II**

Jannde/Leçons 19 à 33