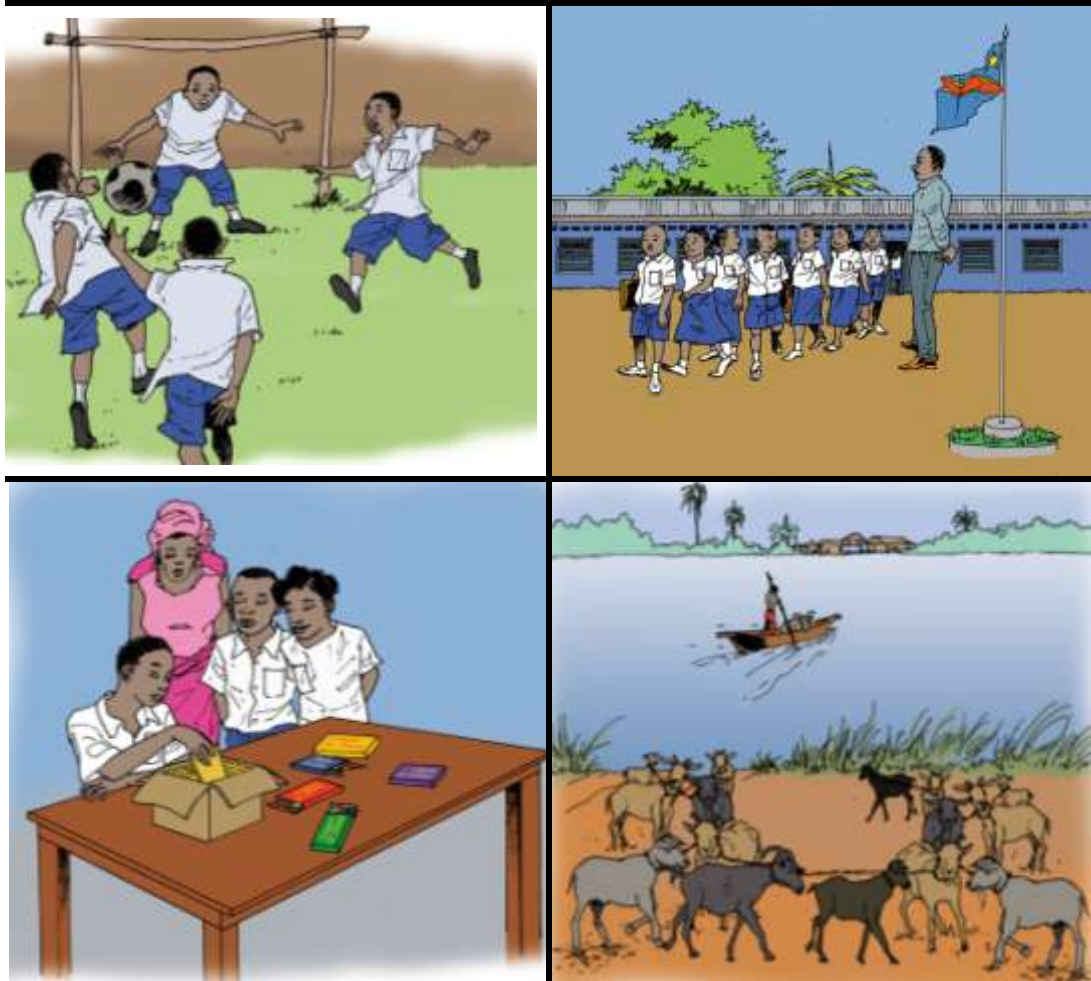


DITUNGA DIA KONGO WA MUNGALATA
TSHIBAMBALU TSHIA NDONGESHELU WA TULASA TUPUEKELE, TUBANDILA NE
DISHIDIMUNA DIA BUENA MUABO BUPIABUPIA
BULONGOLODI BUA NDONGAMU YA TULASA NE BINTU BIA KULONGESHA NABI

MUA KUENZA NE MAKUMI 1

Mukanda wa kalasa ka kumpala



DILONGA MU DIJANDULA MIANDA

Mukanda wa mulongi

Tshiongo wa Minanga 2016

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KADIOSHA

Mu 2013, Tshibambalu tshia Ndongeshelu wa Tulasa Tupuekele, Tubandila ne Dishidimuna dia Buena muabo Bupiabupia tshivua tshisangisha bamanyi bapiluke bua kutangila ndongeshelu wa makumi mu tulasa tupuekele tua mu Kongo wa Mungalata.

Mu luapolo luabu lua ndekelu, bavua baleja mapanga mavule avua anyanga ndongeshelu muimpe wa makumi.

Bua kukebulula ngenyi ya kulongolola nayi ndongeshelu eu wa makumi uvua munyanguka, Tshibambalu tshia Malongesha a Tulasa Tupuekele, Tubandila ne Dishidimuna dia Buena muabo Bupiabupia tshivua tshifila mudimu wa diela dia menji ne difila mapangadika mapiamapia kudi bamanyi ba makumi ne bakebuludi ba ngenyi.

Bamanyi aba bavua bamona ne bidi bikengela kutentulula mikanda ya makumi mu miakulu inayi ya mu Ditunga dia Kongo wa Mungalata misungula bua kulongesha makumi bimpe mu tulasa tubidi tua ntudijilu. Mikanda eyi idi ne tshia kulonda ngenzelu mupiamupia wa ndongeshelu udi ulomba bua se bakolesha mamanya a ndongeshelu ne bafundila balongeshi mikanda idi ne tshia kubaludika bua kulondabo ndongamu.

Ndongamu udi ulomba bua se ndongeshelu ikala ulonda Bipatshila, akeba mianda idi mua kuambuluisha balongi ne kukeba bionso bidi bikengedibua bua kukolesha mamanya a bana mu makumi.

Ke bualu kayi, mikanda midika dina ne « MUA KUENZA NE MAKUMI 1 & 2» idi ifuma ku difundibua.

Tudi tujingila balongi ne balongeshi bonso ba tulasa etu dibala dia mikanda eyi ne tshisumi bua se ndongeshelu mulenga abandisha mamanya a bana betu mu makumi.

Mufundi munene wa Tshibambalu tshia Ndongeshelu wa Tulasa Tupuekele, Tubandila ne Dishidimuna dia Buena muabo Bupiabupia

MUENA MUABO LUFUNISABO BUNDOKI

MPALA WA MUANDA

Mu 2011, Tshibambalu tshia Ndongeshelu wa Tulasa Tupuekele, Tubandila ne Dishidimuna dia Buena Muabo Bupiabupia tshivua tshilongolola dibalulula ne ditentulula dia Ndongamu wa ditunga wa tulasa tupuekele.

Ndongamu eu wa 2011 kena menemene mupiamupia nansha ; udi mutentulula bua diakajilula Ndongamu wa 2000. Mmufunda pa dijinga dia se ikala mulongolola pa mamanya mapiamapia adi majungulula kudi bamanyi bapiluke ba malu a kala, ba malu a ndongeshelu, ba malu a nsombelu ne bushidimuke.

Pa nanku Ndongamu wa 2011 udi muenza, bu eu wa 2000, bilondeshela Bipatshila (PPO), kadi udi mukolesha ne mianda idi ikeba dilubuluka dia ngenyi.

Mu tshitupa etshi, Bulongolodi bua Ndongamu ya tulasa ne Bintu bia Kulongesha nabi mbufunda mikanda ibidi idi ibikidibua ne «Mua Kuenza ne Makumi», bua kalasa ka kumpala ne kalasa kibidi. Mikanda eyi ibidi idi mibueja mianda mu ndongeshelu wa makumi.

Ku Mikanda eyi ibidi kudi mukanda wa mulongi ne mukuabo wa mulongeshi udi umuleja ndongeshelu ne mua kupepeja mudimu wende wa dilongolola ne disonsolola malongesha ne dienzela mianda.

Dieyemena ku mianda didi dileja nshintulukilu wa ngenzelu wa mulongeshi wa tshibidilu mu dikebulula bua balongi bafika ku diumvua bipatshila bia pankatshinkatshi bivule pamue ne mamanya kabukabu.

Pa nanku, mulongeshi udi ne tshia kusemeja mianda pamue ne bidi bipitakana mu nsombelu wa balongi bua kufika ku kipatshila ka balongi ne kubatabuluja.

Tudi tujingila balongi ne balongeshi bonso ba tulasa etu dibala dia mikanda eyi ne tshisumi, bua se ndongeshelu mulenga abandisha mamanya a bana betu mu makumi.

Tshibambalu tshia Ndongeshelu wa Tulasa Tupuekele, Tubandila ne Dishidimuna dia Buena muabo Bupiabupia tshidi tshielulula UNICEF tuasakidila wa manza tenta bua diambuluisha diende dia bia kuenza nabi mudimu ne makuta adi mafikisha ku dienza mikanda eyi. Tshidi tshiela kabidi tuasakidila kudi Kasumbu ka Ditunga ka Bamanyi ba Makumi bua mudimu muimpe udibo benza.

Mulombodi – Mfumu wa Ndongamu ya Tulasa
ne bintu bia Kulongesha Nabio

Inabanza Anne-Marie NZUMBA NTEBA LUVUFU

MBANGILU

Mukanda eu « Mua Kuenza ne Makumi 1 » udi ulonda ndongamu mupiamupia mushintulula mu 2011. Udi tshipeta tshia ngikadilu wa dilongesha dia makumi a tulasa tupuekele mu Kongo wa Mungalata ne didi dikeba dishemesha dia ndongeshelu.

Mukanda eu, udi weyemena ku njila wa mianda bua kukolesha mamanya mu ndongeshelu. Njila eu wa mianda udi wambuluisha balongi bua kupetabu makokeshi mu makumi adi mua kubambuluisha bua kumanya mua kusulakaja malu a mu nsombelu.

Mukanda eu wa « Mua Kuenza ne Makumi 1 », mmufunda ne mianda 26, miabuluja mu bitupa binene 5 ne tshitupa tshionso tshinene tshidi tshishikila ne Diambulula dia malongesha.

Muanda onso mmuabanya mu malongesha anyi a tusunsa 45 ku dilongesha. Muanda mumana kulonga udi mua kupingajibua tshiakabidi bua kuambuluisha balongi mu diumvua dia dilongesha dipiadipia munkatshi anyi ku ndekelu kua tshidimu.

Mianda eyi idi yandamuna ku bipatshila biena bualu ne bipatshila bia ntokeshelu, bifunda mu Ndongamu. Muanda onso mmuenza bilondeshela muaba musungula, midimu ya kuenza ne ya kuteta nayi mamanya a balongi.

« Muanda 0 », mufila ku ntudijilu wa mukanda, udi ne mudimu wa kuleja njila wa kulonda. Nsangilu eu wa Mianda ya nsombelu udi wambuluisha Mulongeshi bua amanya mua kutebelela balongi bende ne kumanya mua kubaleja mushindu wa kulonda malongesha alua pashishe.

Mulongi kena ne tshia kufunda munda mua mukanda wende to. Midimu yonso idiyi ne tshia kufunda ayenzela amu mu kaye kende anyi pa mabeji, bilondeshela mibelu idi mulongeshi ufila mukana.

Mukanda eu wa « Mua Kuenza ne Makumi 1 » udi mushindikija kudi mukanda wa mulongeshi udi umvuija ne uleja ku bualu ne bualu bitupa bishilangane bia malongesha pa dibadika nomba, bienzedi bia makumi, bipiminu, bipapu ne dijandula dia nshinga.

Mukanda eu udi muakaja bilondeshela nsombelu. Udi wipatshila bua muana amanya mua kujoja ne ntema, kukolesha lungenyi lua kufuka ne bukumbane bua dikebulula, pa dieyemena ku makumi bua kusulakaja mianda idi imuluila.

Bafundi

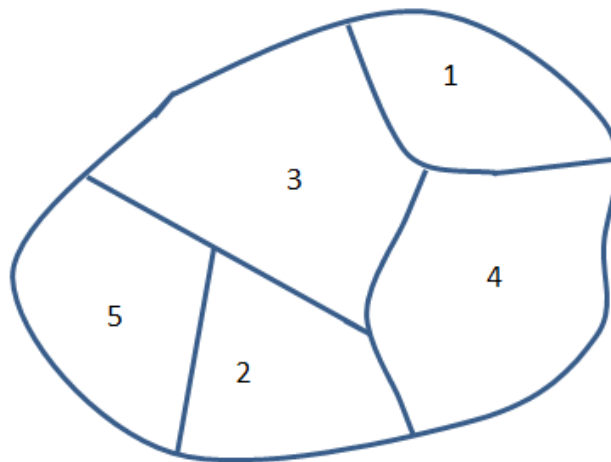
MUANDA 0 – DIFESTO DIA BENA MUSOKO

Malongesha

- Dibadika, dibala ne difunda nomba ku 0 too ne ku 5
- Tshipapu, tshitupa tshia tshipapu ne mukalu

Bena mu katupa ka Tshimenga tshia Mbuji Mayi kadibo babikila ne « BONZOLA » badi balongolola difesto. Kudi tshipapu tshilongolola bua dinaya tshidi tshikosolola mu tupapu tutuangana mikalu. Bua kubuela mu dinaya dia kapapu kampanda, munayi udi ne tshia kusungula nimelo mukumbanangane ne nimelo wa kapapu aka.

Ambuluisha Kanku bua aleja bungu bua mikalu idiye ne tshia kusambuka bua kupita mu manaya a tupapu tuonso.



1. Leja kapapu ka dinaya pa tshipapu tshidi tshizola.
 - a) Ne munu webe, leja nyungululu wa kapapu kaudi musungula.
 - b) Tshipapu etshi ntshikosolola mu tupapu bungu munyi ?
 - c) Ne munu webe, leja mikalu ya kapapu ku kamue ku kamue.
 - d) Leja ne munu kapapu ka nimelo 5 ne kapapu ka nimelo 3.
2. Kanku mmusungula katshi kafunda nimelo 1. Mikalu bungu munyi idiye ne tshia kusambuka kumbukila ku katupa kadi kafunda nimelo 4 ?
3. Diela nkonko ya momumue bua nimelo 2, 3, 4 anyi 5 kumbukila ku kapapu nimelo 1.

Dibidija nkayebe.

- a) Zola tupapu 3 tudi tulonda mu kaye kebe.



- b) Londeshelula mikalu ya katupa konso ka dinaya ne dikala dikunze.
- c) Fita diikala dia lubule mu katupa ka kumpala.
- d) Funda 1, 2 ne 3 munda mua tupapu muditu tulondangane.
- e) Ela mishonyimishonyi pambelu pa katupa 3.

MUANDA 1 – LUPANGU LUA BUKUA NYAMA

Malongesha

-Dijingulula, disunguluja, milongo, tusumbu, dilondangana ne dilongolola dia bintu anyi dia bimfuanyi bidi ne tshikadilu tshimua anyi bibidi bifuanangana

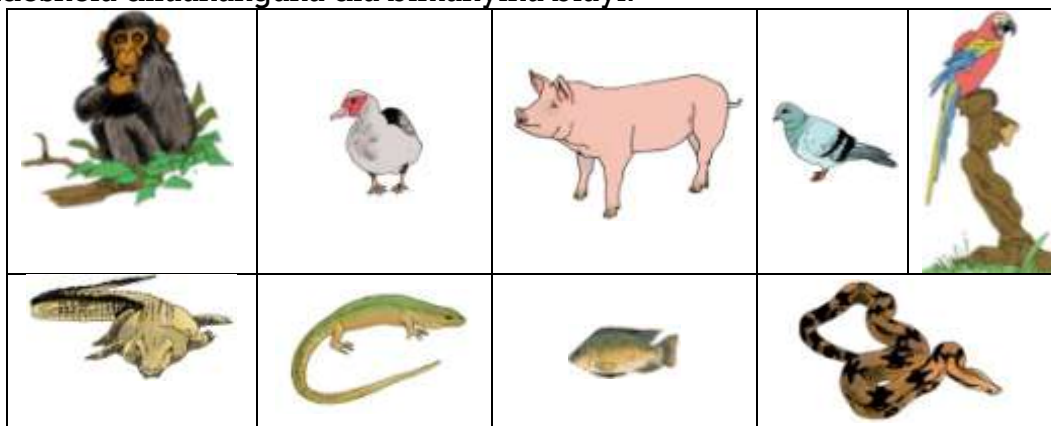
-Difita mekala mu bimfuanyi bia bunene bumue ne/anyi bia mushindu umue

-Dibadika, difunda ne dibala nombwa wa bintu, wa bantu anyi wa bimfwanyi ku 0 too ne ku 9

-Difunda nombwa ku 0 too ne ku 9 pa tshipapu tsha tshijengu anyi pa mulongo mululame.

Kunyima kua luendu luenza kudi bana mu lupangu lua bukwa nyama, bana aba badi balondelangana mishindu ya nyama bamba ne : imue nyama idi mua kubuka, mikuabo idi ilanda panshi anyi ku mitshi, kudi idi yowela mu mayi anyi mimanya kulanda ne kowela.

Kunyima kua dibateleja, Mulongeshi udi ubalomba bua se, bajoja bimfuanyi bia imue ya ku nyama eyi idi mizola, bafila mena ayi, bayabanya mu tusumbu bilondeshela difuanangana dia bimanyinu biayi.



1. Badika bungu bua nyama idi mizola mu tuzubu.
2. a. Kudi nyama bungu munyi idi :
 - ☞ ibuka ?
 - ☞ yowela ?
 - ☞ Ilandala anyi ijongoloka ?
 b. Funda mu kaye kebe ne badika nombwa udi uleja bungu bua nyama ya kasumbu ne kasumbu.
3. a. Tela mena a nyama idi :
 - ☞ yowela ne ibuka :
 - ☞ ijongoloka ne yowela :
 b. Funda mu kaye kebe ne badika nombwa udi uleja bungu bua nyama ya kasumbu ne kasumbu.
4. a) Tuaku munu pa nyama :
 - ☞ udi musombela mu mayi.
 - ☞ idi misombela pa buloba.
 - ☞ idi mua kusombela mu mayi ne pa buloba.
 b) Funda mu kaye kebe ne badika nombwa udi uleja bungu bua nyama ya kasumbu ne kasumbu.

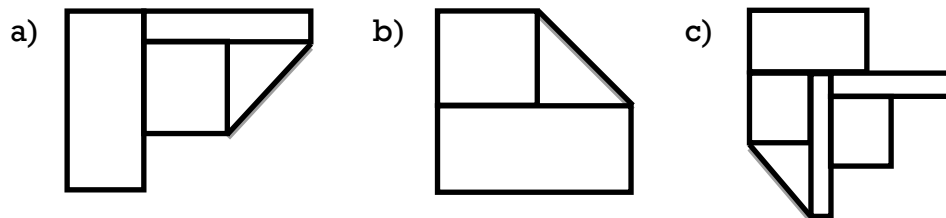
5. Kudi nyama bungi munyi idi ibuka, ijongoloka ne yowela muaba umue ?

Dibidija nkayebe

1. Joja bipapu ebi bidi bizola :

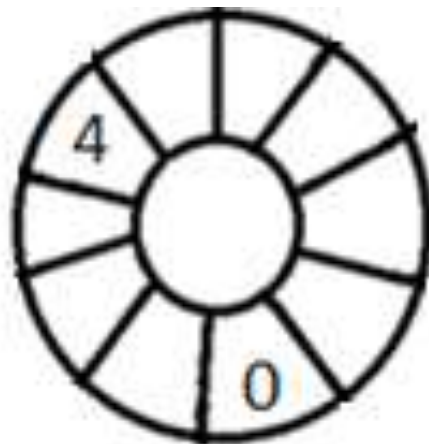


Bipapu ebi bidi bizola pa dibeji, mbituangaja mushindu eu :



☞ Amba ne funda bungi bua bipapu bidi bizola ne mekala mafuanangane ne mekala a bipapu bia ku ntudijilu.

2. Tentulula ne sakidila mu tuzubu nombu ku 0 too ne ku 9, bilondeshela ku mukese too ne ku munene.



MUANDA 2 – DIABANYA MBOMBO

Malongesha

- Dijalamija dia + ne = mu bienzedi
- Disuikakaja ne disulakaja dia nomba ku 0 too ne ku 5
- Dijalamija dia - ne = mu bienzedi
- Tshipeta tshia disangisha anyi diumbushila dia bintu

Tshibanda udi ne mbombo 5 mu tshibuta tshiende. Mmusua kuyabanyina balunda bende 2 : Kayembe ne Kamba.

1. Udi mua kuabanya mbombo eyi mishindu mishilangane :



$$2+3=5$$

- a) Bidi bikengela kusakidila mbombo bungu munyi bua kukumbaja mbombo 5 ?



$$3 + \dots = 5$$

- b) Bidi bikengela kusakidila mbombo bungu munyi bua kukumbaja mbombo 5 ?



$$4 + \dots = 5$$

- c) Bidi bikengela kusakidila mbombo bungu munyi bua kukumbaja mbombo 5 ?



$$2 + \dots = 5$$

2. Keba mushindu mukuabo wa kuabanya mbombo eyi 5.
3. Tshibanda mmupesha Kabue mbombo 2. Nkumushadila mbombo bungu munyi mu tshibuta tshiende?

$$5 - 2 =$$

4. Tshibanda mmupesha Mbuyi mbombo 4. Mmushala ne mbombo bungu munyi mu tshibuta tshiende ?

Dibidija nkayebe

1. Tentulula ne tuangaja ne miketa mangi adi momumue, bu mudi tshilejelu etshi :

$$1 + 3 \rightarrow 4 + 0$$

a) $1 + 2 \bullet \bullet 3 + 0$ b) $1 + 2 \bullet \bullet 3 + 2$ c) $5 - 2 \bullet \bullet 3 + 0$

$2 + 2 \bullet \bullet 1 + 3$ $2 + 3 \bullet \bullet 0 + 4$ $2 + 2 \bullet \bullet 5 - 3$

$1 + 4 \bullet \bullet 1 + 1$ $4 + 0 \bullet \bullet 2 + 1$ $3 - 1 \bullet \bullet 5 - 1$

$2 + 0 \bullet \bullet 5 + 0$ $2 + 0 \bullet \bullet 0 + 2$ $5 - 0 \bullet \bullet 5 + 0$

2. Tatuende wa Tshibalabala mmumupesha tshianza tshia bibota 5. Padi Tshibalabala udia tshibote 1, upesha mulunda wende Kempe bibota 2 ne udia kabidi tshikuabo 1. Nkumushadila bibote bungi munyi ?

3. Tentulula ne sakidila nomba idi misokoka.

a)

4

b) $5 \xrightarrow{\dots} 2 \xrightarrow{\dots} 1 \xrightarrow{\dots} 0 \xrightarrow{+\dots} 4$

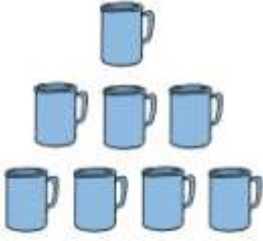



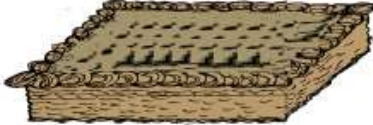

c) $10 \xrightarrow{-3} \dots \xrightarrow{-1} \dots \xrightarrow{-4} \dots \xrightarrow{-2} \dots$

MUANDA 3 – MUABA WA KULAMINA BINTU BIA TSHIKUKU

Malongesha

- Dijingulula, disunguluja, milongo, tusumbu, dilondangana ne difita mekala mu bintu bidi ne tshikadilu tshimua anyi bibidi bifuanangana
- Dibadika nombu ku 0 too ne ku 9 kubangila ku mikesa anyi ku minene
- Difunda ne dibala nombu ku 0 too ne ku 9, dibadika dia bintu anyi dia bantu ku 0 too ne ku 9
- Difuanyikija, dilonga ne dilongolola dia bintu, bimfuanyi anyi nombu ku 0 too ne ku 9
- Dienzela bimanyinu : =, <, > ne mulongu wa nombu
- Dilonga nombu ku 0 too ne ku 9 kubangila ku mikesa anyi ku minene

Solomo mmusua kuambuluisha mamuende mu dilongolola makopo, ngesu ne nkutu mu bisaka. Ambuluisha Solomo bua ateka bintu bilondeshela difuanangana diabi mu miaba idi mikumbanyine.

		
Makopo	Ngesu	Nkutu
		

1. a) Badika ne funda bungu bua bintu bia mu nzubu bilondeshela ku mushindu ne mushindu.

b) - Joja bisaka ebi.

- Longa bintu bia bungu bupita bukesa mu tshisaka tshipite bukesa.

- Longa bintu bia bungu bupite bunene mu tshisaka tshipite bunene.

c) Mbintu kayi bidi bilonga mu tshisaka tshipite bukesa ?

d) Mbintu kayi bidi bilonga mu tshisaka tshipite bunene ?

2. Joja bisaka ebi bidi bizola :

Tshisaka 1



Tshisaka 2



a) Fuanyikija bungu bua bintu bidi biteka mu bisaka ebi 2.

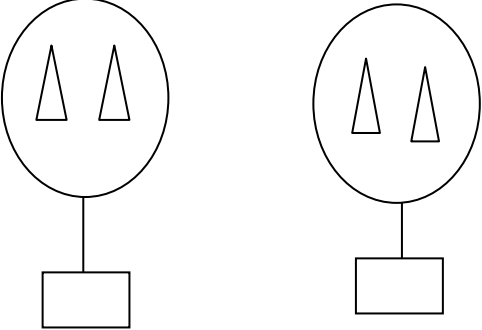
Tshisaka tshinene tshidi ne bintu bia pamutu bungu munyi bidi bipitshila bintu bidi mu tshisaka tshikese ?

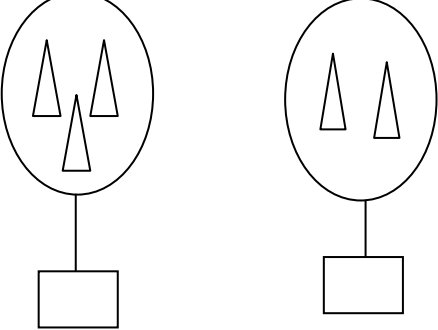
b) Bintu bungu kayi biudi mua kusakidila bua se mu tshisaka tshikese ne mu tshisaka tshinene muikala bintu bungu bumue ?

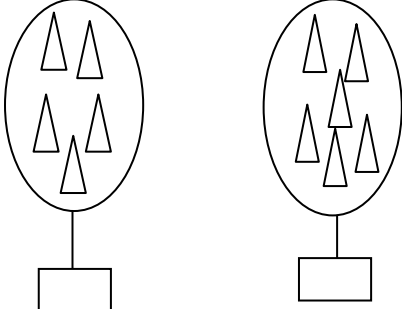
Dibidija nkayebe

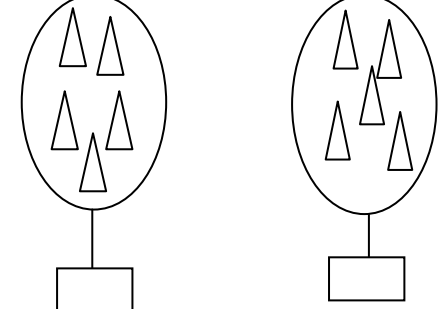
1. Mu kaye kebe, leja ne funda mu kazubu kadi katupu bungi wa bintu bidi mu kasumbu konso.

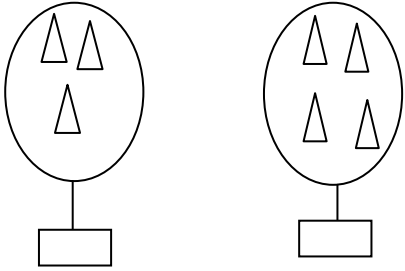
- ☞ Bintu bidi bipite bungi bidi mu tshijengu kayi ?
- ☞ Bintu bidi bipite bukese bidi mu tshijengu kayi ?
- ☞ Bintu bidi bikala bungi bumue bidi mu bijengu kayi ?

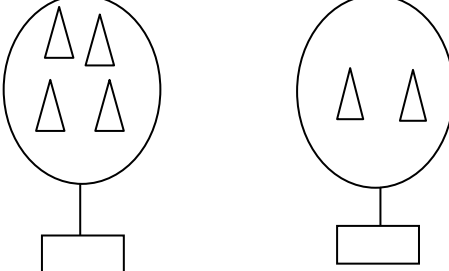
a) 

b) 

c) 

d) 

e) 

f) 

2. Tentulula ne teka kamanyinu kadi kakumbanyina > ; = ; < Londa tshilejelu.

3	>	1
1		2
0		4
2		3
5		4
7		7

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

MUANDA 4 – DIABANYA BIMUMA BIA OLANJI

Malongesha

-Dijalamija dia + ne = mu bienzedi

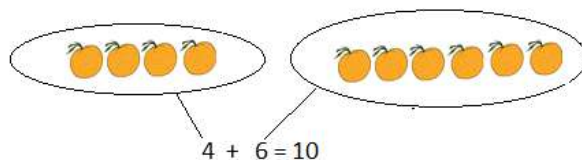
-Disuikakaja ne disulakaja dia nomba too ne ku 10

-Dijalamija dia - ne =

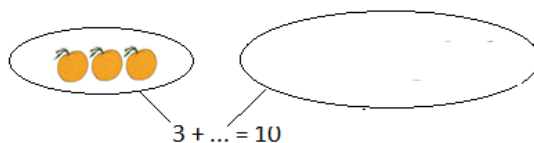
Lufuluabo udi ne olanji mu tshibuta tshiende. Mmusua kuyabanyina Mbuyamba ne Tshiamala



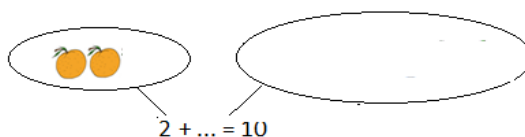
1. Badika olanji eyi ku umue ku umue.
2. Lufuluabo udi mua kuabanya olanji yende eyi mu mishindu mishilangane. Tshilejilu :



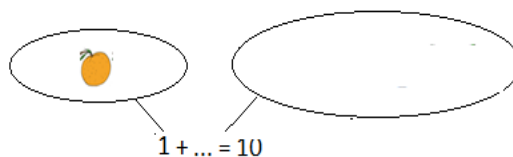
- a) Olanji bungi kayi idiye mua kusakidila mu kazubu kadi katupu bua kukumbaja olanji 10 ?



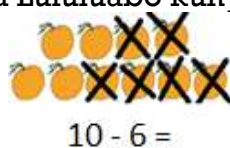
- b) Olanji bungi kayi idiye mua kusakidila mu kazubu kadi katupu bua kukumbaja olanji 10 ?



- c) Olanji bungi kayi idiye mua kusakidila mu kazubu kadi katupu bua kukumbaja olanji 10 ?



3. Keba mishindu mikuabo idibo mua kuabanya kabidi olanji eyi 10.
4. Lufuluabo udi upesha Mbuyamba olanji 6. Funda mu kaye kebe bungi bua olanji yashala mu tshibuta tsha Lufuluabo kunyima kua diabanya.



$$10 - 6 =$$

5. Lufuluabo udi upesha Ilunga olanji 5.



$$9 - 5 =$$

Funda mu kaye kebe bungu bua olanji yashala mu tshibuta tshia Lufuluabo kunyima kua diabanya

Dibidija nkayebe

1. Funda ne Sakidila mu kaye kebe nombu udi musokoka bua tshipeta tshia disangisha tshikala 10.

- a) $10 = 2 + \dots$ c) $10 = 10 + \dots$ e) $10 = 0 + \dots$
 b) $10 = 9 + \dots$ d) $10 = 8 + \dots$ f) $10 = 5 + \dots$

2. Tentulula mu kaye kebe ne kuatakaja ne muketa mangi adi momumue

- a) $8 + 2 = \dots$ $9 + 1 = \dots$ b) $5 + 3 = \dots$ $3 + 2 = \dots$ c) $9 - 2 = \dots$ $9 + 0 = \dots$
 $7 + 2 = \dots$ $5 + 4 = \dots$ $2 + 3 = \dots$ $3 + 5 = \dots$ $7 + 2 = \dots$ $10 - 3 = \dots$

3. Tentulula ne sakidila :

- a) $2 \xrightarrow{+3} \dots \xrightarrow{+1} \dots \xrightarrow{+0} \dots \xrightarrow{+4} \dots$ b) $4 \xrightarrow{+ \dots} 5 \xrightarrow{+ \dots} 7 \xrightarrow{+ \dots} 9 \xrightarrow{+ \dots} 10$
 c) $10 \xrightarrow{-3} \dots \xrightarrow{-1} \dots \xrightarrow{-4} \dots \xrightarrow{-2} \dots$

4. Lufuluabo mmupola olanji 10 mu lupangu luabo lua mitshi ya bimuma.

Wakudia olanji 2, wakupesha Meta olanji 4 ne wakudia kabidi mukuabo olanji

1. Neashala ne olanji bungu kayi ?

MUANDA 5 – MATUKU A LUMINGU NE DILONDANGANA DIA MEBA

Malongesha

- Matuku a lumingu

- Meba a kujuka ku tulu, kuya mu kalasa, kupatuka mu kalasa, kupingana ku mbelu, kudia ne kulala

Ku ndekelu kua ngondo 3 ya tshidimu tshia tulasa, mulongeshi wa kalasa ka 1 ka E.P. MBAYI udi upesha balongi bende dilondangana dia mateta edi :

	Dimue	Dibidi	Disatu	Dinayi	Ditanu	Disambombo
Lumingu lua kumpala				Dilonga malu a Buena muabo ne a nsombelu mulenga	Dilonga malu a mpatshi	Dilonga malu a bukole bua mubidi ne dilama nyungulukilu
Lumingu luibidi	Muakulu wa Tshiluba	Makumi	Mamanya a ditabuluka			

Ambuluisha mulongi udi ku luseka luebe bua amanya matuku a lumingu.

1. Mateta neenjibue mu matuku bungu munyi ?
2. a) Nditeta kayi didi kumpala?
b) Diteta dia kumpala ne dipite dituku kayi ?
3. Tela matuku onso a mateta mudiwu malondangane.
4. Ndituku kayi dia mu lumingu didi balongi kabayi ne diteta ?
5. a) Tela matuku onso a mu lumingu mudiwu malondangana.
b) Lumingu ludi ne matuku bungu munyi ?

Dibidija nkayebe

1. Mu Dilondangana dia malongesha a kalasa ka 1, diba dibidi ne diba ditanu dia dituku dionso didi ne malongesha aa :

Meba	Dimue	Dibidi	Disatu	Dinayi	Ditanu	Disambombo
Diba dibidi	Malu a Mvidi Mukulu	Dilonga malu a Buena muabo ne a nsombelu mulenga	Miaku ya Muakulu	Dibala	Dilonga malu a dibidija mubidi	Kuamba ku moyo
Diba ditanu	Dilonga Malu a mpatshi	Dikolesha Mamanya a mpatshi	Muakulu wa Tshiluba	Nshinga	Dilonga mudimu wa muvulu	

Dilongesha kayi didi mu diba:



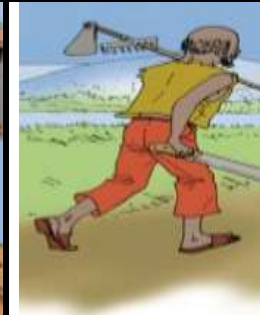
a) 2 mu Dimue ?

b) 5 mu dibidi ?

c) 2 mu Dinayi ?

d) 5 mu ditanu ?

2. Joja dilondangana dia meba dia Tatuende wa Munyingela :

			
Mu dinayi udi ku tshikumbi udisha ngombe	Mu disatu udi uya kuloba	Mu ditanu dionso udi upana bikela mu tshisalu	Udi uya ku budimi mu Dimue ne mu Dibidi

Kuatakaja muanda onso ku dituku didi diwulongoluela.

Udi uya ku budimi

mu Disatu

Udi uya kuloba

mu Dimue

udi ku tshikumbi

mu Dibidi

udi uya kupana
bikela

mu Ditanu

mu Dinayi

3. Tela dituku dia mu lumingu diwutu :

uya kusambila

usukula bilamba bia
kalasa

unaya ndundu

ulonda bimfuanyi binaya

uya kuloba

uya kulala kumpala kua
diba

1. Fundulula ne kumbaja nomba 7, 3, 5, 2, 8 mu tuzubu kubangila ku mukese.

--	--	--	--	--

.../ Mpwe 5

2. Fundulula ne kumbaja ne bimanyinu ebi > ; = ; < miaba idi mibikunyine mu tuzubu etu :

9		8
6		5
4		4
3		1
0		6

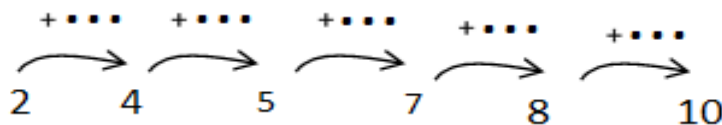
.../ Mpwe 5

3. Fundulula ne suikakaja ne muketa mangi adi makumbanangana:

$8 - 2 =$ $= 10 - 2$
 $6 + 2 =$ $= 6 + 0$

.../ Mpwe 5

4. Fundulula ne kumbaja pa tutoba nomba idi mikumbanyina :



.../ Mpwe 5

5. Kasonga mmupola mandelena 10 mu budimi bua bimuma. Udi udia tshimuma 1, upesha mulunda wenda bikuabo 3, udi udia kabidi 2. Nkumushadila bimuma bungu munyi ?

.../ Mpwe 5

6. Teka malu a Kasongo mu meba malondangana a mu dituku mu ditela nomba 1 too ne ku 8.

.../ Mpwe 5

Kasongo mmulala	Kasongo udi mu kalasa ulonga	Kasongo udi owa mayi	Kasongo udi udia didia dia dilolo	Kasongo udi uvuala mupanu	Kasongo udi umbusha bilamba bia kalasa	Kasongo udi uya mu kalasa	Kasongo udi unaya mu diba dia dikisha dikese
...

MUANDA 6 – DINAYA KALATA

Malongesha

- Dibadika nombra ku 11 too ne ku 20 kubangila ku mikesa anyi ku minene
- Difunda ne dibala nombra ku 11 too ne ku 20
- Dishindika dia + ne = mu bienzedi

Panyima pa dinaya kalata, Kabongo mmupeta mbombo 10 musangu wa 1. Udi uyilama mu kasheta kafunda 10 pa mutu paku. Mu ditungunuka ne dinaya, udi upeta mbombo 1 mu tshitupa tshionso tshidi tshilonda, too ne padiyi ukumbaja mbombo 20. Muambuisha bua apeta nombra ya mbombo mipeta misangu yonso idiye munaya.



1. Musangu wa kumpala Kabongo mmupeta mbombo bungi kayi ?
2. Kumbaja mbombo 1 misangu yonso ku eyi ikadiye mupeta, ibadika ne funda mu kaye makumi audi muenza ne tshipeta.

<p>a)</p>	<p>b)</p>
<p>c)</p>	<p>d)</p>
<p>e)</p>	<p>f)</p>

<p>g)</p>	<p>h)</p>
<p>i)</p>	<p>j)</p>

3. Tela nomba kubangila ku 11 too ne ku 20, ifunda mu kaye keba bituadijila ku mukese too ne ku munene, pashisha ku munene too ne ku mukese.

Dibidija nkayebe

Sangisha :

a) $10+1=$

b) $10+2=$

c) $10+3=$

d) $10+4=$

e) $10+5=$

f) $10+6=$

g) $10+7=$

h) $10+8=$

i) $10+9=$

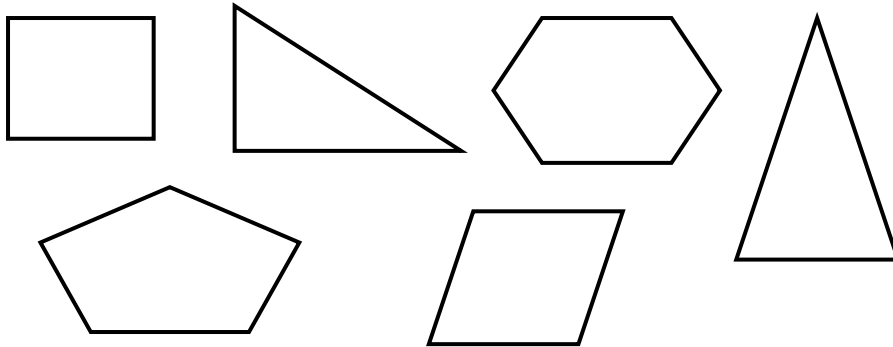
j) $10+10=$

MUANDA 7 – DIELA BILENGEJILU MU KALASA

Malongesha

- Dijingulula, difuanyikija, diela milongo, dikosoloja, difita mekala mu bipapu : tshipapu tshia matumba 4 malulame ne nseka 4 ya bula bumue, tshipapu tshia matumba 4 malulame, tshipapu tshia matumba 3 ne tshipapu tshia tshijengu.

Bua kuela bilengejilu mu kalasa kende, Nkongolo udi ukosa bipapu bishilangane pa dibeki dia kalato ne ubifita mekala.



- 1- Zolulula tshipapu tshionso mu kaye kebe anyi pa dibaya diebe.
- 2- a) Tshipapu tshionso tshidi ne nseka bungu kayi ?
b) Funda bungu abu muinshi mua tshipapu tshionso.
- 3- Fita mekala pa :
 - a) bipapu bia nseka 3 : dikala dia mayi a matamba.
 - b) bipapu bia nseka 4 : dikala dia manyimanyi
 - c) bipapu bia nseka 5 : dikala dikunza
 - d) bipapu bia nseka 6 : dikala dia lubule

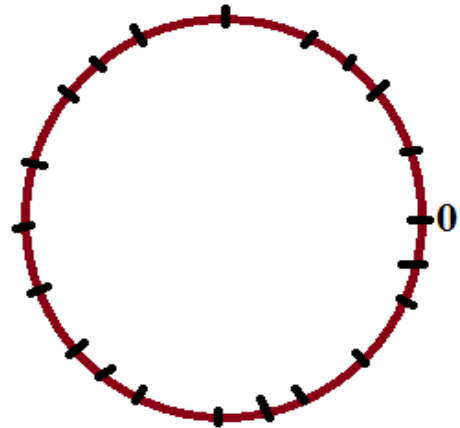
MUANDA 8 – DINAYA DIA WA KULUILA KULUILA

Malongesha

- Difuanyikija, dilonga, dilongolola dia bintu, bimfuanyi, nomba ku 0 too ne ku 20 : Dienzela bimanyinu : =, <, > ne mulongo wa nomba
- Dilonga nomba kubangila ku mikese too ne ku minene, ku minene too ne ku mikese

Dinaya dia « wa kuluila kuluila » dia kunayila mu lubanza lua tshilongelu ne kufwanyikija pa tshijengu tshifunda ku tshibasa.

Bana badi baditeka mu tshijengu, mulongeshi muimana muaba wa ntudijilu. Balongi badi badipesha nimelo kubangila ku 1 too 20. Badi babadika kutuadija ku nimelo mukese too ne ku munene ; pashishe kubangila ku nimelo munene too ne ku mukese. Balongi bakuabo ba kalasa badi bajoja.



Balongi badi bapeta dibeki dizola tshipapu tshia tshijengu tshikale ne tutshi 21. Tshitudilu 0 tshidi tshileja muaba wa kubangila. Padi mulongeshi utela nimelo kapanda, mulongi udi mukantshi mua tshipapu tshia tshijengu ne nimelo eu udi wela tshianza mulu wamba ne : mmema ! Mulongi yonso udi musomba mu kalasa udi ne bua kujadika muaba ne kufunda pa dibeki dienda nimelo pa tshipapu tshia tshijengu.

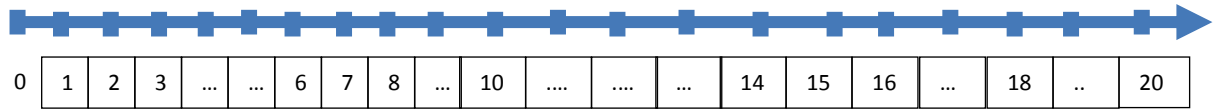
Mu dilongolola dia nimelo eu, mulongeshi udi ne bua kujadika ne balongi badi bashintakaja ngenyi mu tshiumvuilu ne pa muaba wa nimelo yonso pa tshipapu tshia tshijengu.

1. Andamuna ku nkonko eyi :

- Balongi badi bungu munyi mu tshipapu tshia tshijengu ?
- Shiferi 0 udi uleja nganyi?
- Bala kuyi utupakana kubangila ku 0 too ne ku 20.
- Bala kuyi utupakana kubangila ku 20 too ne ku 0.
- Funda nomba kubangila ku 0 too ne ku 20.

f) Bala nomba kubangila ku 0 too 20 ne ku 20 too 0.

2. Mu kaye kebe, ela mulongo mululame udi uleja bana mu mulongo. Kumbaja nomba idi mipangika pa tutoba.



3. Tubeji tua nimelo, kubangila ku 0 too ne ku 20, ntuteka tubuejakaja.



Mulongo mukosolola mu bitupa 20 mmufunda ku tshibasa.



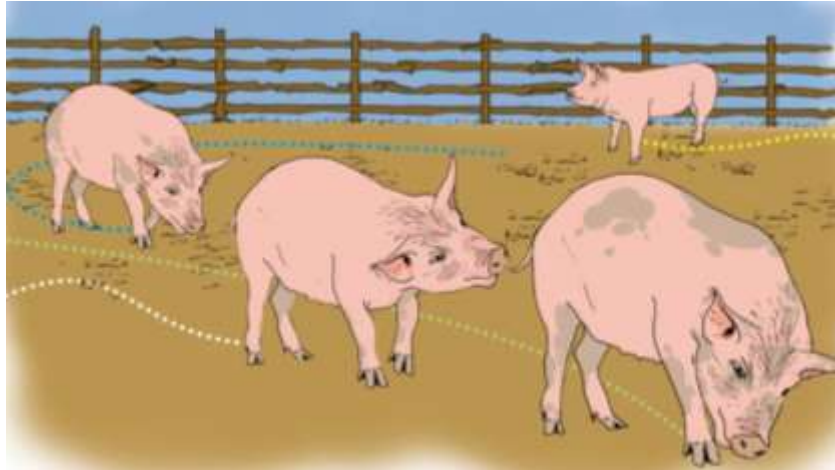
- Leja kabeji kadi ne nimelo 0.
- Umbusha kabeji aka ne tentula nimelo waku muaba muakane pa mulongo.
- Enza momumwe bua nimelo mikwabo, wikala unemeka dilongondangana diayi kubangila ku mukese too ne ku munene.
- Bala nomba yonso idi mifunda pa mulongo mululame.
- Longolola nimelo mu tshipapu tshia tshijengu kubangila ku mukese too ne ku munene.

MUANDA 9 – TSHIKUMBI TSHIA KANDA

Malongesha

- Difuanyikija dia bula, butshiana ne butumbuke bulela ku bula, butshiana ne butumbuke butshinka
- Bidikijilu bia bula bia mfukilu: diboku, monji, musungu, tanta a tshianza,...
- Bidikijilu bia bula bia tshipungidi: metele, desimetele

Nguluba yonso ya Kanda mmipatuka mu tshikumbi.

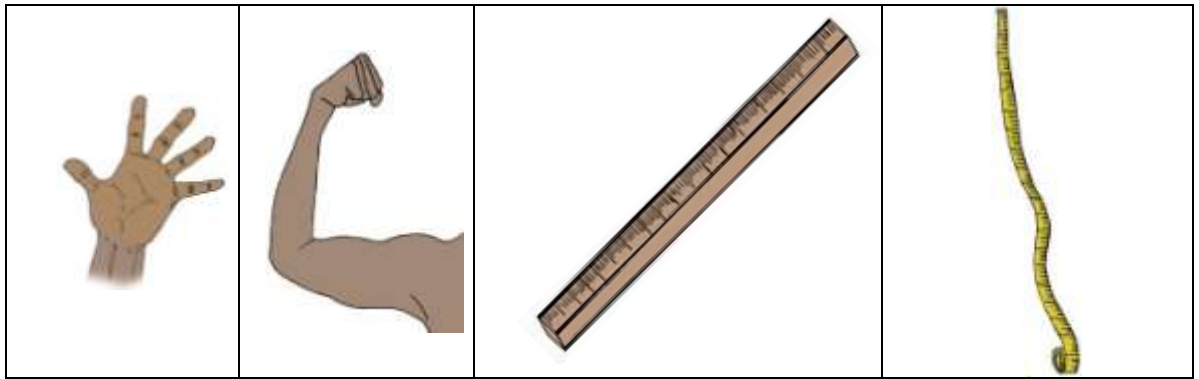


1. a) Leja nguluba udi mutantshi mule ne tshikumbi.
b) Leja ne munu weba nguluba udi pabuipi ne tshikumbi.
c) Leja nguluba udi muya mutantshi mule ne tshikumbi.

Mu lubanza lua tulasa, mulongeshi mmuteka lusoka ludi luleja nguluba umue ku umue :

2- Joja mfuanyikijilu muenza kudi mulongeshi.

- a) Leja mushindu wa kupima mutantshi eu ne tshitupa tshia mubidi webe.
b) Amba bula bua mutantshi udi nguluba yonso muenze.
3. a) Tshinka bungu bua makasa audi mua kuela pakanthi pa nguluba udi mutantshi mule ne eu udi pabuipi ne tshikumbi.
b) Balongi 3 badi bakontonona ne dipima mutantshi eu ne makasa abo. Ne bapeta bonso bungu bumue bua makasa anyi ? Bua tshinyi ?



4. a) Mu kalasa, ne diambuluisha dia bipiminu bia mfukilu bidi bizola kulu eku, leja tshitupa kayi tshia mubidi webe tshidi tshikumbana bua kupima mitantshi iuvua mupeta mu lubanza lua kalasa.
- b) Munkatshi mua bidi bizola kulu, ntshintu kayi tshidi tshikumabanyina bua kupima natshio ?
- c) Leja mu kalasa bintu biudi mua kupima ne tshidikijilu tshipiatshipia.

Dibidija nkayebe

- 1 a) Tshinka bule bua tshibasa mu bungu bua bianza, bua ntanta wa tshianza anyi bua mpala wa diboko.
- b) Kotonona ditshinka diebe ne dipima tshibasa.
2. Bangulula nkonko miela ku mutu eku ne katshi ka metele 1 bu tshipiminu
3. Fuanyikija bipeta biebe bia ku njmelo 1 ne 2.
4. Bua tshintu tshimue tshipima, umvuija dishilangana dia bipeta.
5. Leja mu kalasa bintu biudi bua kupima ne metele, desimetele.
6. Shindika tshintu tshidi tshipita bule ne tshintu tshia tshitupa ku bintu biudi mupima.
7. Shindika tshinganyi tshidi tshipite bule pakantshi pa muelelu wa tshibasa ne muelelu wa mesa a mulongeshi.

MUANDA 10 – DIKOSA BIBOTA

Malongesha

- Dijingulula, disunguluja, tusumbu, dilondangana ne dilongolola, difita mekala pa bintu bidi ne tshikadilu tshimue anyi bidi bifuanangana
- Dibala nomba ku 0 too ne ku 20 ; ku 20 too ne ku 0
- Difunda ne dibala nomba ku 0 too ne ku 20
- Dibadika bintu, bantu anyi bimfuanyi ku tusumbu tua : 2, 3, 4, 5, 6
- Difwanyikija, dilonga, dilongolola dia bintu, bimfuanyi ne nomba ku 0 too ne ku 20
- Dienzela bimanyinu : =, <, > ne mulongu wa nomba, dilonga nomba kubangila ku mikese too ne ku minene, ku minene too ne ku mikese

Lufuluabo mmukosa mitundu 2 ya bibota. Kumpala kua kuyipanyisha, mmusua kumanya bungi bua bibota bionso.



Funda mu kaye kebe, tulongo tudi tuleja bungi bua bibota ebi.

A. Bua mutundu wa bibota wa kumpala:

1. Teka bibota bia mutundu wa kumpala mu bianza bia bibota 10.
2. Udi upeta bianza bungi kayi bia bibota 10?
3. Bibota bungi kayi bidi bishale kunyima kua diabanya bibota mu bianza bia bibota 10 ?
4. Bibota bionso bidi bungi kayi ?

B. Bangulula nkonko ya momumwe bua mutundu mukuabo wa bibota.

C. Tshianza tshionso tshia bibota 10 tshidi tshienza tshikuta 1 tshia bibota.

Manya ne : $1D = 10 U$

Pa nanku : $1D + 3U = 13$

1- Kumbaja : $\dots D + 1 U = 11$

2- Funda nomba uudi upeta ne :

a) Tshikuta tshia bibota ne bibota 3

b) Tshikuta tshia bibota ne bibota 7

3- Tetuntulula tshiakabidi, sulakaja ne bala nomba idi ilonda:

a) $13 = \dots D + \dots U$

b) $17 = \dots D + \dots U$

4- Bala nomba idi ilonda, tetuntulula ne isulakaja :

a) $15 = \dots D + \dots U$

b) $14 = \dots D + \dots U$

D. Kalala mulongolola pa tshiata bungi bua bibota bidiye mupeta mu mushindu eu :

1)

D	U
1	1

2) Pa divulguka muanda wa mbedi, tentulula nombra ya bibota bia mitundu 2 mu kaye kebe, ne ikumbaja mu tshiata tshidi tshilonda,

Mutundu wa 1 wa bibota

D	U

Mutundu 2 wa bibota

D	U

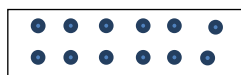
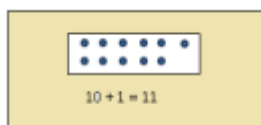
Dibidija nkayebe

1. a) Funda mu kaye kebe nombra ya shiferi 2 ne diambuluisha dia shiferi 2, 0 ne 1.
 b) Bungi kayi bua nombra ya shiferi 2 mishilangane iudi mua kuenza ?
 c) Teka nombra eyi mu tshiata tshia difunda nombra.
 d) Ku nombra eyi, nnombra kayi udi mupite bukese?
 e) Nombra kayi udi mupite bunene ?

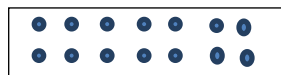
2. Tentulula ne kumbaja mu kazubu katupu bimanyinu : <, =, >.

a)	15		5
b)	12		18
c)	12 + 7		13 + 2
d)	1 + 19		15 - 3
e)	9 + 2		20 - 9

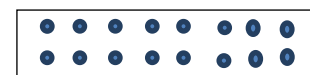
3. Tentulula ne kumbaja pa kulonda bilondeshela tshilejelu :



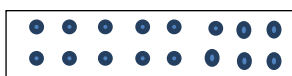
$10 + \dots = 12$



$10 + \dots = \dots$



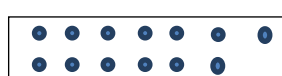
$10 + \dots = \dots$



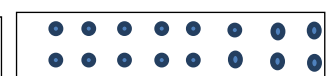
$10 + \dots = \dots$



$10 + \dots = \dots$



$10 + \dots = \dots$



$10 + \dots = \dots$

4. Tentulula ne enza makumi:

a) $10 + 2 =$ _____ e) $10 + 8 =$ _____

b) $10 + 4 =$ _____ f) $10 + 6 =$ _____

c) $2 + 10 =$ _____ g) $3 + 10 =$ _____

d) $10 = 5 +$ _____ h) $10 = 8 +$ _____

5. Tentulula ne kumbaja kazubu katupu kudi : $<$, $=$, $>$.

a)	$10 + 9$		$10 + 5$
b)	$5 + 10$		$10 + 3$
c)	$10 + 7$		$10 + 1$
d)	$0 + 10$		$10 + 0$

6. Peta masangisha onso a shiferi 2 audi mupeta bikala bitupesha 10.

1. a) Tentulula ne suikakaja nomba umue wa dikunji dia kumpala ku mukuabo wa dikunji dibidi bua se bipeta bia sangishilu wabo ikala 20.

... / Mpwe 8

12	11
7	13
9	8
5	15

- c) Funda nomba ya dikunji dia kumpala bituadijila ku bungu bukese too ne ku bungu bunene.
d) Funda nomba ya dikunji dibidi bituadijila ku bungu bunene too ne ku bungu bukese.

2. Mushindu kayi udi tshibasa tshia kufundila tshia kalasa keba ?
Tshinka bule bua tshibasa tshia kufundila etshi mu.

... / Mpwe 4

3. Tentulula ne kumbaja :

$$\begin{aligned} 11 &= \dots D + \dots U \\ 19 &= \dots D + \dots U \end{aligned}$$

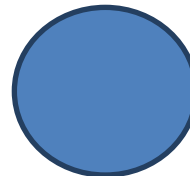
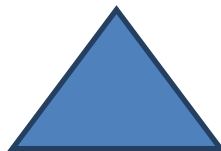
... / Mpwe 4

4. Nomba kayi wa shiferi 2 udi mupite bukese ?

... / Mpwe 3

5. Nomba kayi udi ku nseka ya tshimfwanyi tshionso tshidi tshilonda?

a)



... / Mpwe 6

MUANDA 11 – TSHIANGATSHILU TSHIA BISA

Malongesha

- Diabalume ne diabakaji

- Dileja dia bintu : ku diabalume, ku diabakaji, pambelu ne munda

Bana 3 mbindila bisa, kadi makanyishela utshidi ulongolola fele. Joja mushindu udi bantu bashilashilangana bikala pamue ne bintu mu tshimfuanyi ne londela unudi nenda mu tshibasa tshia kalasa bidi pa tshimfuanyi etshi.



1.	Shindika tshikadilu tshia yonso wa ku bana aba 3 badi ku tshimanyinu tshia bisa	
a)	Muana wa bakaji udi usanganyibua ku luseka kayi lua nsongalume mukola ?	
b)	Muana mukesa wa balume udi usanganyibua ku luseka kayi lua wa bakaji ?	
c)	Nsongalume mukole udi usanganyibua penyi bilondeshele muana wa bakaji ?	
2.	Bana 3 aba kabena banji kubuela mu bisa to, badi penyi ?	
3.	Mundidimbi wa bisa udi kuepi?	

4. Kumbaja ne miaku eyi : Kumpala ; kunyima kua; munda mua, pa mbelu pa, pa mutu pa.

a)	Vuatire udi kuepi		bisa
b)	Dikalu didi kuepi		bisa
c)	Bisa bidi kuepi		Vuatir ne dikalu
d)	Mudi bintu		bisa

Dibidija nkayebe

1. Joja tshimfuanyi etshi :



Kumbaja mukana ne « kumpala » anyi « kunyima »

- a) Munyemi wa lubilu udi _____ Muendeshi wa dikalu
b) Munyemi ne dikalu udi _____ Muendeshi wa tshitukutuku

2. Mona diku disangila



- a) Nganyi udi ku diabalume dia tatu ?
b) Nganyi udi ku diabakaji dia mamu ?

3. Joja tshimfuanyi ne kumbaja mukana ne : kuinshi, kulu, munda mua, pa mbelu pa.



- a) Nsanji udi _____ mesa makesa
b) Mbua udi _____ mesa makesa
c) Mpusu udi _____ nsanji

MUANDA 12 – KU MUSULU

Malongesha

- Dileja dia bintu : ku diabalume, ku diabakaji, pambelu ne munda;
- Diludika, diendakana mu dilonda njila mu muaba mukodiakana anyi pa dibeki dia tuzubu bilondeshila dishindika muaba : ku diabakaji, ku diabalume, mulu, panshi, munda, pambelu.

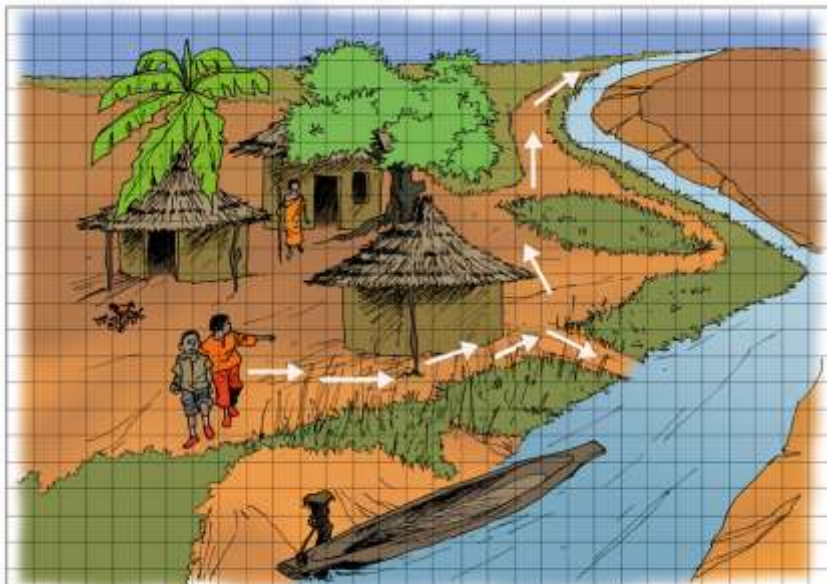
A) Kudi luya. Mbuyamba mmusua kuya kuowa mayi ku musulu wa Nsadi wa mu Tshimenga tshia Tshikapa. Muleja njila wa kulonda bua kufikaye ku musulu.



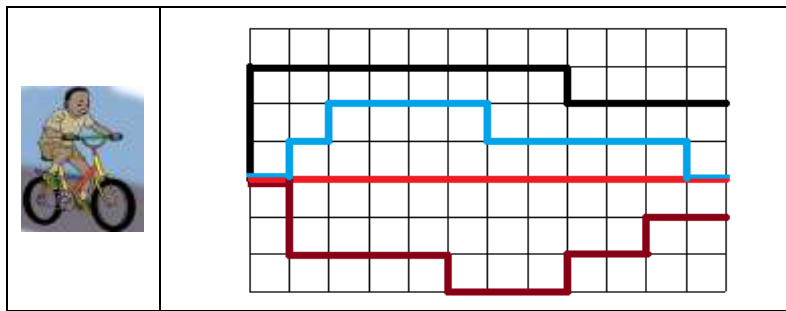
1- Leja ne munu webe njila 2 idi mitangila ku musulu.

2- Mbuyamba mmusua kuya pa lukasa ku musulu, muleja njila udiye ne bua kuyila.

B) Diendakana pa dibeki dia tuzubu : Kalala waleji njila mupita bule pa dibeki dia tuzubu. Leja ne munu njila mupita bule.

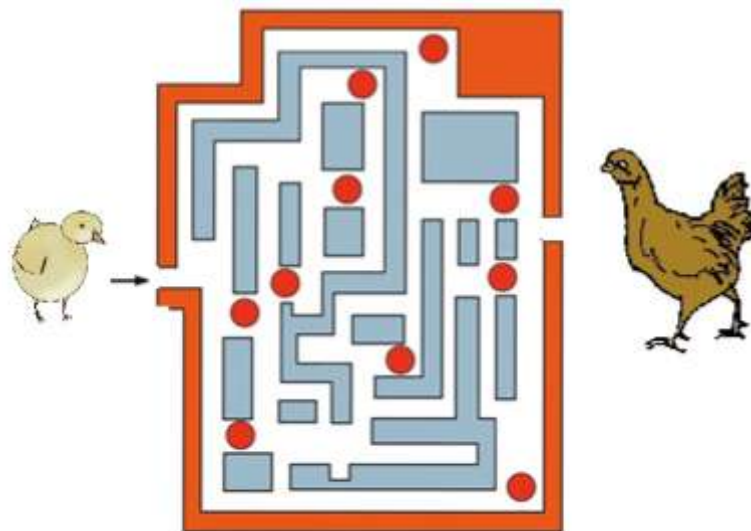


Mona njila mipiamipia 4 idi mizola. a) Nnguepi udi mupita bule ?
 b) Nnguepi udi mupita buipi ?

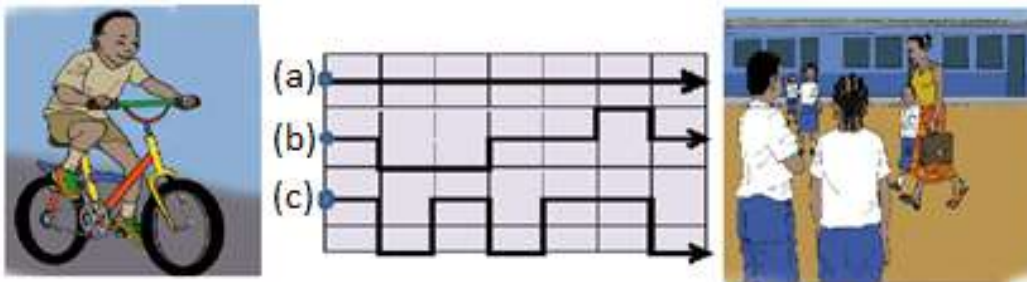


Dibidija nkayebe

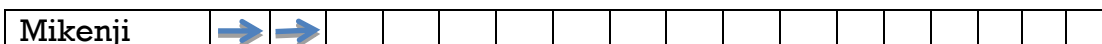
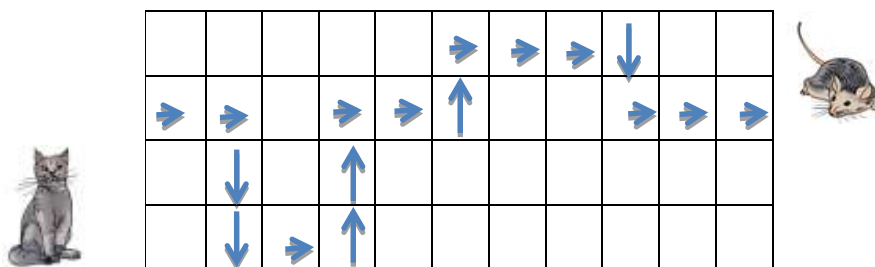
1- Ambuluisha kana ka nzolu bua kapeta mamuaku. Wamanya! Kambishi kadi mua kukakuata. Kambishi nkaleja kudi matoba makunza.



2- Nnjila kayi udi muipi bua kufika ku tshilongelu ?



3- Tentulula ne kumbaja tshibasa tshia mikenji ne miketa idi ileja njila wa kambishi kadi kasua kukuata mpuku.
 Many bimpe : muketa umue ku kazubu



MUANDA 13 – TSHIKUMBI TSHIA KANKU

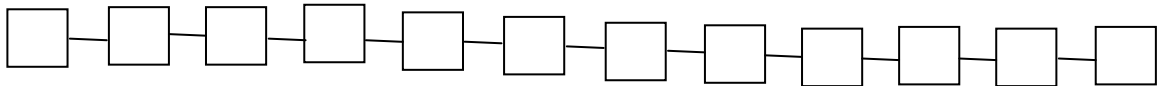
Malongesha

- Dibadika nomba ku 0 too ne ku 20 kubangila ku mikesa anyi ku minene
- Difunda ne dibala nomba ku 0 too ne ku 20
- Dibadika bintu, bantu anyi bimfuanyi ku tusumbu tua 2
- Difunda nomba ku 0 too ne ku 20 pa tshipapu tsha tshijengu anyi pa mulongo mululame.

Dinda dionso, padi Kanku, mumunyi unzulula lupangu lua bimuna biende, mabata adi apatuka mu mulongo matangila mu lubanza. Mmupesha dibata dionso nimelo bua kumanya bungi buawu. Muambuluisha bua amanya bungi bua mabata ende.



1. Tentula tuzubu etu, mu kaye kebe.



- a) Funda nimelo wa dibata dionso mu tuzubu kubangila ku 1.
- b) Bala nimelo yonso iudi mufunda.
- c) Mabata onso masanga adi anga ?

2. Mu kaye kebe, fundulula nomba yonso iudi mupeta pa tutoba, kubangila ku mukesa too ne ku munene.



3. Mu kaye kebe, fundulula nomba yonso pa tutoba, kubangila ku munena too ne ku mukesa.



4. Amba ku moyo, nomba ku 1 too ne ku 12, pashishe ku 12 too ne ku 1.

5. Bala bungi bua mabata ku bisumbu 2.

Dienzela makumi

1. Amba bungi bua mabata adi mashala bua kupeta 12.



Tentula ne kumbaja :

$$7 + \dots = 12$$

1. Amba bungi bua mabata adi mashala bua kupeta 11.



Tentula ne kumbaja :

$$3 + \dots = 11$$

2. Tentula ne kumbaja :

a)

11 =		
8	+	...
4	+	...
9	+	...

b)

12 =		
6	+	...
10	+	...
9	+	...

MUANDA 14 – DIFESTO DIA TSHILONGELU

Malongesha

- Dishindika dia + ne = mu bienzedi
- Dishindika dia - ne = mu bienzedi
- Kuleja ne miketa mua kuabanya anyi mua kusulakaja ku disangisha anyi ku iumbushila nomba ku 0 too ne ku 10
- Tuzubu tutshiamakane twa kusangishila anyi kumbushila nomba ku 0 too ne ku 10 ; ku 10 too ne ku 20.

Manaya mashilangana mmenzeka dia difesto dia tulasa tupuekele tua E.P. MAPENDO. Balongi ba kalasa ka 1, Kanku, Ndaya, Tshiunza, Kabedi ne Tshibola badi benza dinaya dia kusungula tualata 2 ku musangu. Tualata etu tudi ne nimelo mifunda 0 too ne ku 10. Kalata konso kadi kaleja bungi bua keleyo ya mekala mashilangana ya kutapa.



1. KABEDI wangatshi kalata kafunda 2 ne kakuabu kafunda 3
KANKU : 0 ne 4 ;
NDAYA : 3 ne 4 ;
TSHIUNZA : 0 ne 5
TSHIBOLA : 5 ne 1

Ambuluisha Yombo bua amanya muntu udi mupeta keleyo ya bungi kupita bakuabo.

1. Tentula ne kumbaja makumi :

- a) Kabedi udi ne : $2+3 = \dots$ keleyo
- b) Kanku udi ne : $0+4 = \dots$ keleyo
- c) Ndaya udi ne : $3+4 = \dots$ keleyo
- d) Tshiunza udi ne : $0+5 = \dots$ keleyo
- e) Tshibola udi ne : $5+1 = \dots$ keleyo

2. Bakuabo balongi mbanaya pabu :

a) Ku keleyo 9 ya Makolo, mmupesha muakunyenda Tshimpaka keleyo 3.

Tentula ne kumbaja: $9 - 3 = \dots$ keleyo

b) Ku keleyo 10 ya Tshiba, mmupesha Mbuyi keleyo 5.

Tentula ne kumbaja: $10 - 5 = \dots$ keleyo

3. Tentula ne kumbaja mangi a keleyo a kupeta anyi adi ashala.

a) $5 - 2 =$ _____

b) $7 + 3 =$ _____

c) $8 - 4 =$ _____


d) $10 - 6 =$ _____

e) $4 + 1 =$ _____


f) $6 - 5 =$ _____

4- Tentula ne kumbaja :

a) Tshiata tshia disangishila :

	0	1	2	3	4	5
+						
0	0			3		
1						
2			4			
3					7	
4						
5		6				

b) Tshiata tshia diumbushila :

	0	1	2	3	4	5
6		5				
7				4		
8						
9						4
10			8			

MUANDA 15 – DIABANYA MABI

Malongesha

- Dishindika dia + ne = mu bienzedi
- Dishindika dia - ne = mu bienzedi
- Nsuikilu wa nomba mu disangisha ne diumbushila : dienzela miketa ne + anyi –
- Disuikakaja ne disulakaja dia nomba 15 ne 16
- Tshiata tshia disangisha ne diumbushila dia nomba ku 0 too ne ku 10 ; ku 10 too ne ku 20.

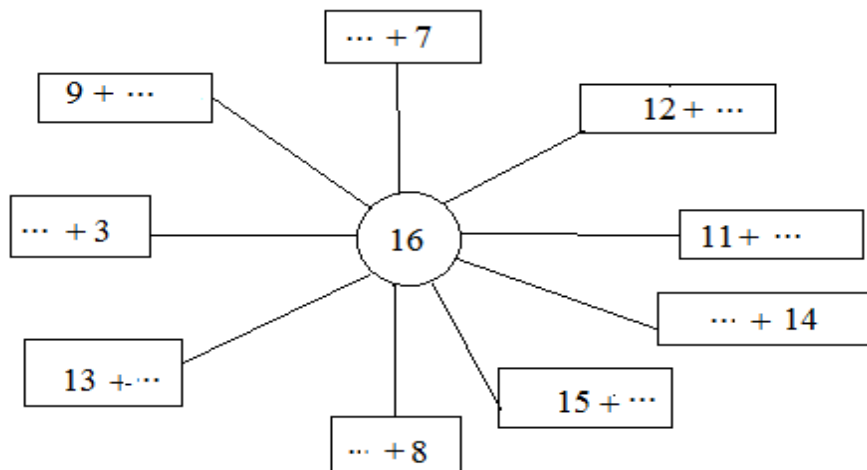
Ndala mmuangula mabi mu tshibuta tshiende tshia mikanda. Mmusue ku-abanyina balunda benda 2, KAYOLA ne KASONGO. Muambuluisha mu diabanya edi.



1. Bala mabi a Ndala ku dimua ku dimua.
2. Mmusua kuabanya mabi 15
Mu dikumbaja mu kaye kebe, kebulula mishindu mishilangana ya kuabanya nomba idi mipangika pa tshiata etshi :

15
9 ...
... 7
12 ...
... 3
13 ...
... 8

3. Tentula ne kumbaja mangi adi mapangika bua kuabanya mabi 16.



4. Kebulula mishindu mikuabu ya kuabanya mangi aa mu diyisangisha bua kupeta :
- a) nomba 15.
b) nomba 16.
5. Pa mabi 17 avua mu tshibuta tshiende, Ndala mmupesha Kayola mabi 8. Ne ashala ne mbia anga?



Tentula ne kumbaja : $17 - 8 =$

1. Pa mabi 15 avua mu tshibuta tshiende, Ndala udi upesha Kayola mabi 7. Ne ashala ne mabi anga?

Dibidija nkayebe

1. Tentula ne kumbaja :

a)	$15 = 2 +$		f)	$16 = 6 +$	
b)	$5 = 10 +$		g)	$16 = 9 +$	
c)	$5 = 9 +$		h)	$16 = 12 +$	
d)	$15 = 0 +$		i)	$16 = 11 +$	
e)	$15 = 5 +$		j)	$16 = 10 +$	

2. Tentula ne kumbaja :

a)	$13 + 2 =$		g)	$16 + 0 =$	
b)	$5 + 10 =$		h)	$6 + 9 =$	
c)	$4 + 9 =$		i)	$12 + 4 =$	
d)	$15 - 0 =$		j)	$16 - 11 =$	
e)	$15 - 5 =$		k)	$16 - 10 =$	
f)	$15 - 5 =$		l)	$16 - 10 =$	

3. Tentula ne kumbaja :



4. Pandi muenda pa dikalu km 5 pabula bua km 16. Nkumushadila km bungu kayi ?
5. Muamba udi ne bisikita 15. Udi udia bisikita 6 ne upesha Kasongo 3. Mmushala ne bisikita binga? _____

1. Tangila bena diku dia Kamba. Ambulula ne kumbaja biambilu bidi bilonda ebi ne miaku eyi : *munkatshi mua; ku diabaluma dia ; kumpala kua ; panyima pa; ku dia bakaji dia.*



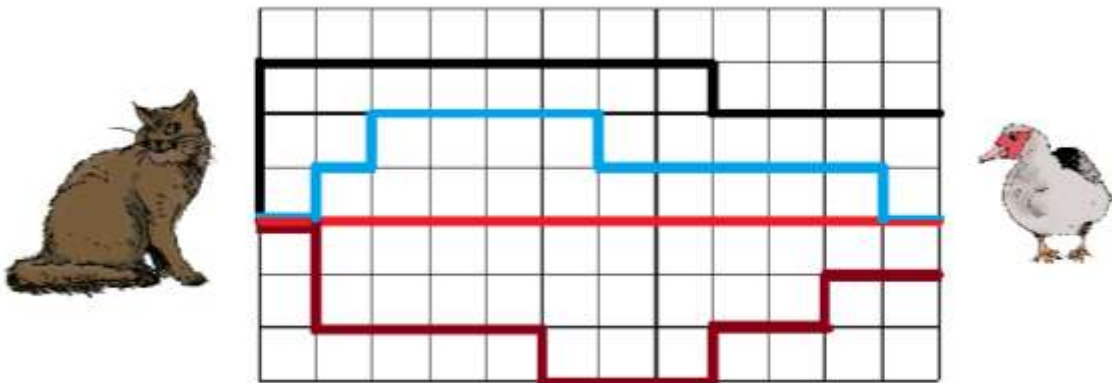
- a) Kamba, tatu, mmuimana muana
- b) Muana udi tatuende ne mamuende
- c) Mamu udi tatu.
- d) Tatu mmuimana mamu.
- e) Muana yeye mupingana tshianyima, ne ikale tatuende ne mamuende.

.../ Mpwe 5

2. Kudi njila 4 idi kampusu mua kulonda bua kukuata dibata
Leja ne munu webe njila wa tshitupa ne njila mule.

- 3. a) Tela mena a matuku onso a mu lumingu.
- b) Amba ne sangisha dituku dionso ku nimelo wdi mu dilondangana dia matuku mu lumingu.

.../ Mpwe 5
.../ Mpwe 4



d) Ku nimelo eyi, nnomba kayi udi mupita bunene? Nguepi udi mupite bukesa?

4. Ku dijuka mu tshisalu tshia Bakua Dianga mutangila mu Tshibuyi, bisa mmuambula bantu 3; pashishe 2 pa tshiimanyinu tshidi tshilonda. Bantu bungu kayi badi bias eu muambula ?

.../ Mpwe 5

5. Tentula ne kumbaja pa tutoba nomba 2 ya kusangisha bua kupeta 16 :

16 = ... + ...	16 = ... + ...	16 = ... + ...
16 = ... + ...	16 = ... + ...	16 = ... + ...

.../ Mpwe 6

MUANDA 16 – DISABULA MBUJI

Malongesha

- Dijingulula, disunguluja, milongu, tusumbu, dilondangana ne difita mekala mu bintu bidi ne tshikadilu tshimua anyi bikadilu bibidi bifuanangana
- Dienzela bimanyinu : =, <, > ne mulongo wa nomba, dilonga nomba kubangila ku mikesa too ne ku minene, ku minene too ne ku mikesa
- Disuikakaja ne disulakaja dia nomba ku 0 too ne ku 20

Kadima, mumunyi wa bimuna, mmusue kupana mbuji yende 16 mu tshisalu tshia dishiya dia Lubilanji. Kadi kena mua kusabuisha mbuji yonso musangu umue to, bualu buatu budi bukese. Mmusue kusabuisha mbuji eyi mu misangu ku tusumbu tua momumua. Muambuluisha bua apeta bungi bua misangu idiyi mua kusabuisha mbuji yende bilondeshela ku tusumbu tudiyi mua kuyiteka.



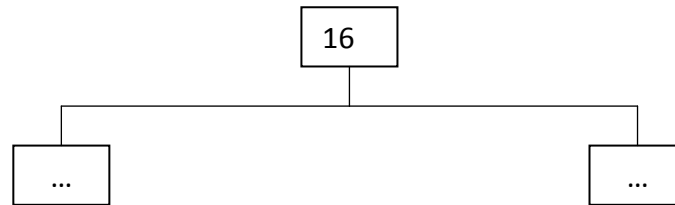
- 1- Funda tutshi 16 mu kaye kebe bua kufuanyikija mbuji eyi 16.
- 2- Pikala Kadima musue kusabuisha mbuji 2 ku musangu, ne enza misangu inga ?
 - a) Enza tusumbu tua tutshi 2
 - b) Leja bungi bua misangu yasabuishaye mbuyi eyi.
- 3- Pikala Kadima musue kusabuisha mbuji 4 ku musangu, ne enza misangu inga ?
 - a) Enza tusumbu tua tutshi 4
 - b) Leja bungi bua misangu ya kusabuisha.
- 4- Pikala Kadima musue kusabula mbuji 8 ku musangu, ne enza misangu inga ?
 - a) Enza tusumbu tua tutshi 8.
 - b) Leja bungi bua misangu ya kusabuisha.
- 5- Pikala Kadima musue kusabuisha misangu 4, ne asabuisha mbuji inga ku musangu ?

6- Ngenzedi wa muanda ne makumi

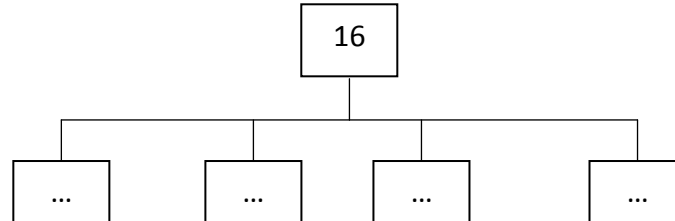
Tangila mitshi idi ilonda eyi, miabulula mu bitupa bidi bileja misangu ya disabuka dia mayi.

- a) Bua mutshi onso, tentula ne kumbaja pa tutoba mangi adi akumbana. (mitshi mmiabanya mu bitupa bikumbanangana):

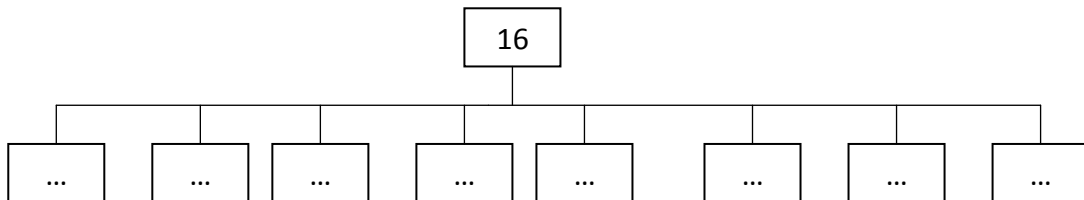
Mutshi 1



Mutshi 2



Mutshi 3



b) Kumbaja nimelo wa mutshi udi mukumbanangana ne mulongo onso wa makumi :

a)	$8 + 8 = 16$	Mutshi :
b)	$4 + 4 + 4 + 4 = 16$	Mutshi :
c)	$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 16$	Mutshi :
d)	$8 \times 2 = 16$	Mutshi :
e)	$4 \times 4 = 16$	Mutshi :
f)	$2 \times 8 = 16$	Mutshi :

Dienzela makumi

1- Suikakaja tusumbu tua bilongo bua difesto dia diledibua dia mulunda webe anyi dia muena mulongo nebe.



- Tentula ne sangisha bilongo ebi mu tusumbu tua bilongo 2
 - Tentula ne sangisha bilongo ebi mu tusumbu tua bilongo 4.
 - Tentula ne sangisha bilongo ebi mu tusumbu tua bilongo 8
- 2- Ku lukonko lonso, leja bungu bua tusumbu tuda mupeta.

3- Pikala balunda 4 balua mu difesto edi, muana yonso ne apeta tusumbu tua bilongo bungu kayi ?

4- Funda makumi adi makumbanangana ne nkonko isatu eyi.

5- Tentula ne leja disangisha didi dikumbanangana ne divudija mangi aa :

$$8 + 8 = 16$$

$$8 \times 2 = 16$$

$$4 + 4 + 4 + 4 = 16$$

$$4 \times 4 = 16$$

$$2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 16$$

$$2 \times 8 = 16$$

Nkonko misakidila

1) Mapaapa 16, bana ba balume (anyi babakaji) bungu munyi?

2) Bana ba balume 8, mmapaapa bungu munyi ?

3) Bikonu bia nguluba 16, nguluba bungu munyi ?

4) Nguluba 2, mbikonu binga ?

5) Tentula ne kumbaja (too ne ku 20) :

↶ ×	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										

6) Kalasa ka 1 ka mu E.P.2 Lukonga kadi ne balongi 12.

Amba bungu bua bisumbu bia ndundu bidibu bua kuenza ne :

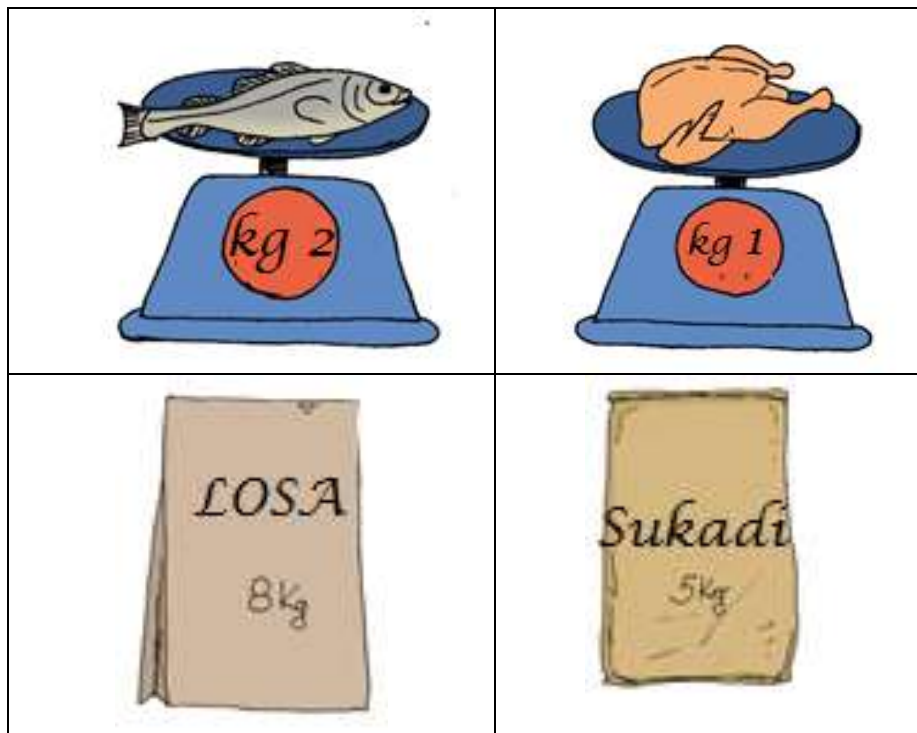
- a) Balongi 6 : bisumbu.....
- b) Balongi 4 : bisumbu.....
- c) Balongi 3 : bisumbu.....

MUANDA 17– DISUMBA BIAKUDIA

Malongesha

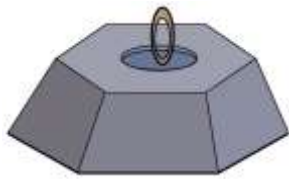
- Dishindika dia + ne = mu bienzedi
- Disuikakaja ne disulakaja dia nomba ku 0 too ne ku 20
- Dienzela bintu bia tshipungidi (tshitempelu), bua kupima difuta ne bipiminu bishindika (kg)
- Misangu ibidi, Tshia bibidi tshia, misangu isatu, tshia bisatu tshia, misangu inayi, mu tshia binayi tshia nomba muikala munkatshi mua 0 ne 20.

Mukalenga mukaji Tshita, mamuenda wa Kalala, mulongi wa kalasa ka 1 B, mmusue kusumba biakudia bia kulamina mu tshisumbishilu tshia biakudia tshidi dina ne « Mua Musube ». Udi mua kusungula :



1. Tentula ne teka bidibua bia bujitu ebu kubangila ku tshia bujitu bupite too ne ku tshia bujitu bukese.
2. Fila tshipeta ne funda mu kaye kebe bujitu bua tshiakudia tshionso tshidi mamu Tshita musumba :
 - a) Tubombi 2 tua sukadi ne nzolo wa kg 1
 - b) Tubombi 2 tua sukadi ne bikela bia kg 2
 - c) Kabombi 1 ka losa ne nzolu 5 ya kg 1
 - d) Kabombi 1 ka losa ne kabombi 1 ka sukadi

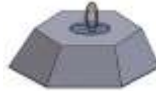
3. Tshinka ne pima majitu a bidibua bidi mamu Tshita musumba ne tshipimilu tshia Roberval et ne bipimu bidi bilonda ebi :



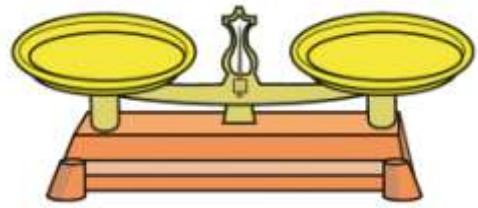
kg 5



kg 2



kg 1



Tshipiminu tshia Roberval

Dienzela makumi

- 1- Mamu Tshita musumba tshia bibidi tshia tshidibua tshionso tshidi tshizola mu muanda udi kulu eku. Peta ne amba bujitu bua tshidibua tshionso tshidiye musumba ?

Pima majitu aa ne tshipiminu tshia Roberval bua kutangila tshipeta tshiebe ne ntshilelela.

- 2- Tentula ne sangisha :

a) $8\text{kg} + 3\text{kg} \underline{\hspace{1cm}} = \dots \text{kg}$

b) $7\text{kg} + 5\text{kg} \underline{\hspace{1cm}} = \dots \text{kg}$

c) $9\text{kg} + 3\text{kg} \underline{\hspace{1cm}} = \dots \text{kg}$

d) $6\text{kg} + 5\text{kg} \underline{\hspace{1cm}} = \dots \text{kg}$

e) $7\text{kg} + 3\text{kg} \underline{\hspace{1cm}} = \dots \text{kg}$

f) $6\text{kg} + 9\text{kg} \underline{\hspace{1cm}} = \dots \text{kg}$

MUANDA 18 – BUDIMI BUA MABUA BUA KAPINGA

Malongesha

- Bungi bua bintu bienguluke bidi mu bipanza : bipiminu bia mfukilu : dikopo dia mabele ditupu, mulangi wa mala mutupu, ngalasa, sakombi, ekolo, kandundu ... ;
- Bipiminu bia tshipungidi : litele, desilitele
- Disangisha ne diumbushila nomba ku 0 too ne ku 20.

Budimi bua mabua bua mukalenga mukaji Kapinga mbupatula bianji bia ngaji. Mmuenga mafuta mu dilongo dinene. Udi ne bindundu bia munda mutupu bia litele 10, bia litele 5, bia litele 3, milangi ya litele 1 ne milangi ya desilitele 1. Ambuluisha mamu Kapinga bua abanya mafuta aa mu bindundu ne mu milangi.



1. Tentula ne longa biasu ebi mu tusumbu 3 :
 - a. Kasumbu ka bindundu (anyi milangi) bidi bipite litele 1
 - b. Kasumbu ka bindundu (anyi milangi) bidi bishadile ku litele 1
 - c. Kasumbu ka bindundu (anyi milangi) bidi ne litele 1
2. Wapetshi tshindundu 1 tshia litele 10, 1 tshia litele 5, 1 tshia litele 3, milangi 2 ya litele 1.
 - a) Tshinka bungi bua mafuta adi inabanza Kapinga mupeta.
 - b) Sangisha bua kumanya ne udi mutshinka bimpe.

Dienzela makumi :

1. Andamuna ku nkonko eyi :
 - a) Milangi ya litele 1 bungi munyi idi mua kuuja nayi tshindundu tshia litele 18 ?
 - b) Bindundu bia litele 5 bungi kayi bidi mua kuuja nabi tshindundu tshia litele 15 ?
 - c) Milangi ya litele 1 bungi kayi idi mua kuuja nayi tshindundu tshia litele 13 ?
 - d) Milangi ya litele 1 bungi kayi idi mua kuuja nayi tshindundu tshia litele 7 ?

2. Bidi bikengela bindundu bia litele 3 bungu kayi bua kuuja nabi :

- ☞ Tshindundu 1 tshia litele 18 ?
- ☞ Tshindundu 1 tshia litele litele 15?
- ☞ Tshindundu 1 tshia litele 9?
- ☞ Tshindundu 1 tshia litele 6 ?

3. Tentula ne fila tshipeta :

$$4 \ell + 6 \ell = \underline{\quad \dots \ell \quad}$$

$$2 \ell + 18 \ell = \underline{\quad \dots \ell \quad}$$

$$19 \ell - 6 \ell = \underline{\quad \dots \ell \quad}$$

$$7 \ell + \dots \ell = \underline{\quad 20 \ell \quad}$$

$$5 d \ell + \dots d \ell = \underline{\quad 13 d \ell \quad}$$

$$17 \ell - \dots \ell = \underline{\quad 6 \ell \quad}$$

$$20 \ell - 13 \ell = \underline{\quad \dots \ell \quad}$$

$$5 \ell + 6 \ell = \underline{\quad \dots \ell \quad}$$

4. Kapinga udi ne litele 20 ya mafuta. Udi umbusha : litele 3 bua kulamba nayi kumbelu, litele 4 bua kuyisumbisha ku nzubu ne idi mishala kuyisumbishila mu tshisalu.

Mukalenga mukaji Kapinga mmusue kusumbisha litele ya mafuta bungu kayi?

Tentula ne ela kashionyini ku luseka lua makumi a tshipeta tshidi tshilelela :

$$20 \ell - 3 \ell = \underline{\hspace{2cm}}$$

$$20 \ell - 4 \ell = \underline{\hspace{2cm}}$$

$$3 \ell + 4 \ell = \underline{\hspace{2cm}}$$

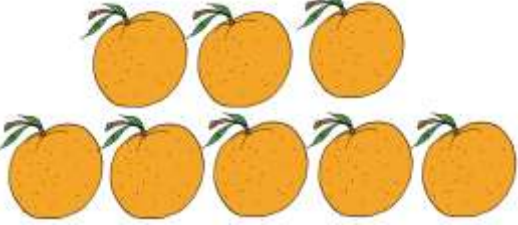


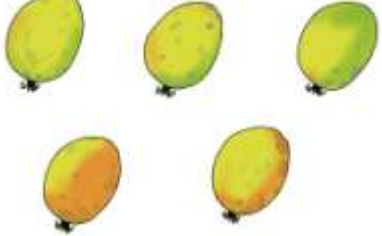
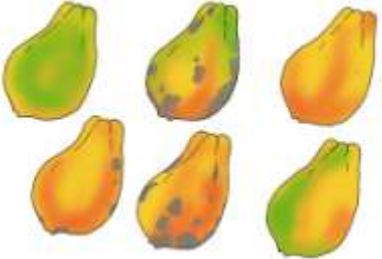

$$20 \ell - 3 \ell - 4 \ell = \underline{\hspace{2cm}}$$

MUANDA 19 – BIMUMA BIA KUKUMBAJA DIDIA

Malongesha

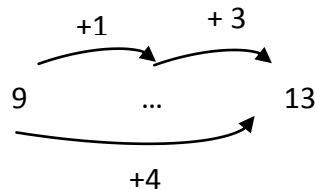
- Dijingulula, disunguluja, dilonga, tusumbu, dilondangana ne difita mekala mu bintu bidi ne tshikadilu tshimua anyi bibidi bifuanangana.
- Dishindika dia + ne = mu bienzedi
- Nsuikilu wa nomba mu disangisha ne diumbushila : dienzela miketa ne + anyi –
- Dijalamija tumanyinu tua disangisha ne diumbushila mu disulakaja dia bintu : - et =
- Kuleja ne miketa difuanangana dia diangisha + ne diumbushila -
- Nomba wa kusakidila bua kukumbaja 10
- Disuikakaja ne disulakaja dia nomba ku 0 too ne ku 20

Bua didia dia mumunya, mfumu wa nzubu wa tshilala benyi mmusua kusumba bimuma bishilashilangana bua kusakidila pa bidiku ebi :

	
Olanji	Avuka
	
Mandalena	Binkalafu
	
Bipapayi	Bikaka

1. Wakusumba bikaka 9 ne avuka 4. Bimuma bungu kayi bidiye musumba ?
Tangila ne umvuija makumi adi Mutombo, mulongi wa kalasa ka 1 B, muenza bua kupeta tshipeta :

$$\begin{aligned}
 9 + 4 &= 9 + 1 + 3 \\
 &= 10 + 3 \\
 &= 13
 \end{aligned}$$



Inabanza eu mmusumba bimuma bionso bisanga 13.

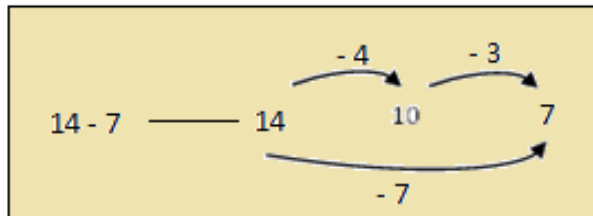
Enza mushindu umue ne Mutombo ; funda eba makumi mu kaye kebe bua kupeta bungu bua bimuma, pikalaye musumba :

- ☞ Mandalena 7 ne bikaka 6
- ☞ Binkalafu 5 ne olanji 8,
- ☞ Bikaka 9 ne mandalena 7
- ☞ Bipapayi 6 ne binkalafu 5

2. Bu yeye musumba tshia bibidi tshia bukua bimuma bionso bidi bizola kulu eku, mmakumi kayi audi mua kuenza pa mushindu onso wa bimuma ? Funda bungu bua bimuma ebi :

- a) Neapeta olanji bungu kayi ?
- b) Neapeta avuka bungu kayi ?
- c) Neapeta mandalenga bungu kayi ?
- d) Neapeta binkalafu bungu kayi ?
- e) Neapeta bipapayi bungu kayi ?
- f) Neapeta bikaka bungu kayi ?

3. Dituku dia kumpala, mfumu wa nzubu wa tshilala benyi udi ufila olanji 4 ne mandalena 3 pa bimuma 14 bivuye musumba. Nkumushadila bimuma bungu kayi ?



Tangila makumi a Bibomba. Udi upitshila yeye pa 10 :

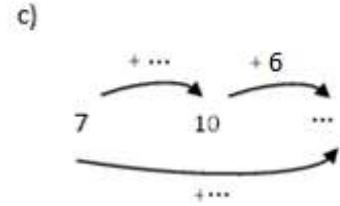
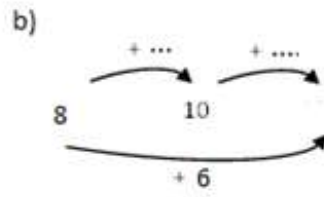
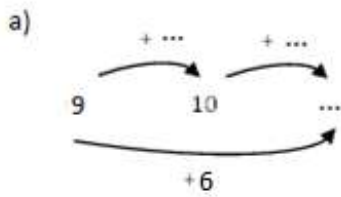
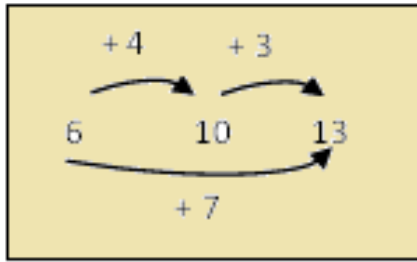
$$\begin{aligned}
 14 - 7 &= 14 - 4 - 3 \\
 &= 10 - 3 \\
 &= 7
 \end{aligned}$$

4. Enza bia momumua ne funda mu kaye kebe makumi adi makumbana bua kupeta bungu bua bimuma, pikalaye mua musumba :

- ☞ Mandalena 5 ne bipapayi 4 pa bimuma 15.
- ☞ Binkalafu 5 ne olanji 3 pa bimuma 18.
- ☞ Bikaka 9 ne mandelena 7 pa bimuma 19.
- ☞ Bipapayi 6 ne binkalafu 5 pa bimuma 13.

Dienzela makumi :

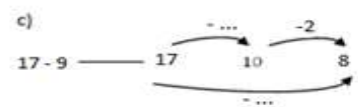
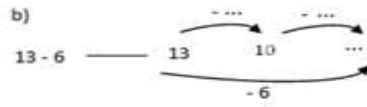
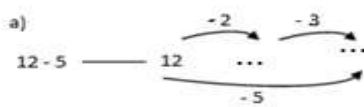
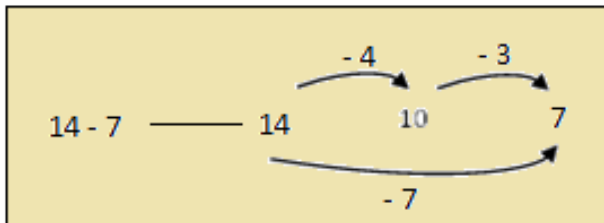
1. Tentula ne kumbaja bilondeshela tshilejelu etshi:



2. Tentula ne fila tshipeta :

- a) $8 + 9 =$ b) $6 + 7 =$ c) $9 + 8 =$ d) $7 + 6 =$
 e) $4 + 9 =$

3. Tentula ne kumbaja bilondeshela tshilejelu etshi:



4. Tentula ne fila tshipeta :

- a) $15 - 9 =$ b) $12 - 8 =$ c) $16 - 9 =$ d) $17 - 9 =$ e) $14 - 7 =$

5. Tangila dizola edi. Enza nshinga udi ukengedibua bua kupitshila pa 10.
 Bua kujandula, keba tshipeta tshienda mu kaye kebe.

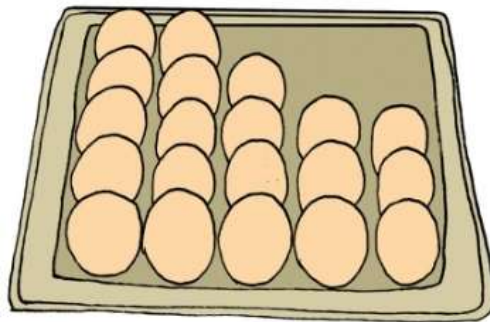


MUANDA 20 – DIPANYISHA MAYI

Malongesha

- Dibadika nomba ku 0 too ne ku 20 kubangila ku mikesa anyi ku minene
- Difunda ne dibala nomba ku 0 too ne ku 20;
- Misangu ibidi, Tshia bibidi tshia, misangu isatu, tshia bisatu tshia , , misangu inayi, mu tshia binayi tshia nomba muikala munkatshi mua 0 ne 20.
- Nshinga mitekete pa nomba miangatshila pa tshia misangu ibidi ya, tshia bibidi tshia, tshia misangu isatu ya, tshia bisatu tshia, tshia misangu inayi ya, tshia binayi tshia nomba wa bintu, bantu, nyunyi, nyama.

Mamuenda wa Kabamba udi ne mayi adiye upanyishilula ku dimue ku dimue.



Kasongo udi usumba mayi 3.

- 1- Muamba udi usumba mayi mapite a Kasongo ku bungi misangu ibidi. Ambuluisha Kabamba bua kubadika bungi bua mayi masumba kudi Muamba.
 - a) Bala bungi bua mayi adi mu tshilaminu tshia mayi.
 - b) Kasongo mmusumba mayi bungi kayi?
 - c) Muamba mmusumba mayi bungi kayi?

Amba: 3 muangata misangu ibidi udi **wenza:** $2 \times 3 = \dots$

Kasongo udi ne mayi mashadila misangu ibidi ku bungi bua mayi a Muamba. Mbuena kuamba se Kasongo udi ne tshia bibidi tshimue tshia bungi bwa mayi wa Muamba

Muamba udi ne mayi mapita misangu ibidi mayi a Kasongo.

Bidi bisua kuamba ne udi ne mayi mikale mapita nomba wa mayi a Kasongo.

- 2- Muamba udi usumba mayi mapita a Kasongo misangu isatu. Ambuluisha Kabamba bua kubala bungi bwa mayi masumba kudi Muamba.
 - a) Nnomba kayi wa mayi adi Kasongo musumba?
 - b) Nnomba kayi wa mayi adi Tshimpaka musumba?

Amba: 3 muvudija misangu isatu udi **wenza** $3 \times 3 = \dots$

Kasongo udi ne mayi mashadila misangu isatu ku a Muamba. Bidi biumvuija se Kasongo udi ne tshia bisatu tshia bungi bua mayi a Muamba Muamba udi ne mayi mapita a Kasongo misangu isatu. Mbuena kuamba ne udi ne mayi mavudija misangu isatu ku a Kasongo.

Dibidija nkayebe

1. Amba bungi bua mabi audi nawu:

- a) Misangu ibidi ya 5
- b) Tshia bisatu tshimue tshia mabi 12
- c) Tshia bibidi tshia mabi 20
- d) Misangu itanu ya mabi 5

2. Tentulula ne enza makumi:

- a) $5 + \text{tshia misangu ibidi ya } 7 =$
- b) $\text{Tshia bibidi tshia } 10 - \text{tshia bisatu tshia } 18 =$
- c) $\text{Tshia bibidi tshia } 8 + \text{tshia binayi tshia } 20 =$

3. Tentulula ne kumbaja kazubu kadi katupu ne bienzedi bia makumi ebi :
tshia bibidi tshia, tshia misangu ibidi, tshia bisatu tshia

a)	7 udi		tshia 14
b)	6 udi		tshia 18
c)	16 udi		tshia 8
d)	12 udi		tshia 4

1- Tentulula ne leja dikumbanangana dia disangisha dionso ne divudija :

$$9 + 9 = 18$$

$$9 \times 2 = 18$$

$$6 + 6 + 6 = 18$$

$$3 \times 6 = 18$$

$$3 + 3 + 3 + 3 + 3 + 3 = 18$$

$$6 \times 3 = 18$$

Mpwe .../ 6

2- Tentulula ne enza makumi:

a) $9\text{kg} + 3\text{kg} = \dots \text{kg}$

b) $7\text{kg} + 6\text{kg} = \dots \text{kg}$

Mpwe .../ 4

3- Tentulula ne kumbaja:

a) $19 \ell - \dots \ell = 14 \ell$

b) $20 \ell - 14 \ell = \dots \ell$

c) $15 \ell - 6 \ell = \dots \ell$

Mpwe .../ 6

4- Tentulula ne kumbaja matoba... ne « $\frac{1}{2}$ wa », « $\frac{1}{3}$ wa »

a) $5 = \dots$ 10

b) $5 = \dots$ 15

c) $6 = \dots$ 18

d) $4 = \dots$ 12

Mpwe .../ 4

5- Mulongeshi udi utwala kidiyo 16 a mekala. Udi ne bua kuikala nayi 8 mu kasheta. Tusheta tuonso tusanga nteta tudi bungu munyi ?

Mpwe .../ 5

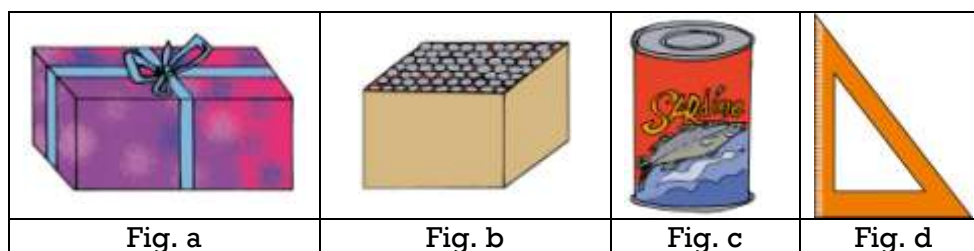
MUANDA 21 – MAZOLA A KASONGA

Malongesha

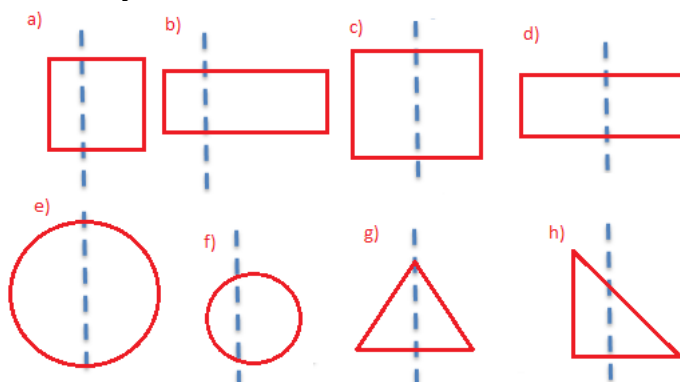
- Milongo mishilangane : milulame, mikobama, misambakana, miunzuluke, mikanga, bitupa bia milongo milulame
- Dijingulula, difuanyikija, diela milongu, dikosoloja, difita mekala mu bipapu : tshipapu tshia matumba 4 malulame, ne nseka 4 mikumbanangana, e, tshipapu tshia matumba 4 malulame, tshipapu tshia matumba asatu ne tshipapu tshia tshijengu
- Dibunya, dikosolola, difita mekala, dilamika, dinyunguluja, diaambakaja bipapu : tshipapu tshia matumba 4 malulame, ne nseka 4 mikumbanangana, e, tshipapu tshia matumba 4 malulame, tshipapu tshia matumba asatu ne tshipapu tshia tshijengu
- Kulongolola bipapu anyi bintu bilondeshila matumba ne nseka yabi : diela kalo, difita mekala mu tuzubu, pa dibeji dia kaye ka makumi

Mamuenda wa Kasonga mmusumba bintu ne mualukila ne bidi bilonda ebi : dikopo dia misangi bua kuelaye mu bisekiseki, kadito ka ngalasa bua kupingajilula pa ikavua mipasuka mu nzubu, pamue une kashete ka mpemba ne katumba kalulame bua kulongesha bana ku nzubu

Mushikankunda Kasongo, udi musue kuzola, udi uzola bimfuanyi bidi kuinshi ebi, pa kuela nyungululu ya bintu bishilashilangana bifuma nabi kudi mamuende Tentulula ne kumbaja pa dibeji dia mukanda (anyi panshi) bintu bishilangana bivua nabi kudi mamuenda.

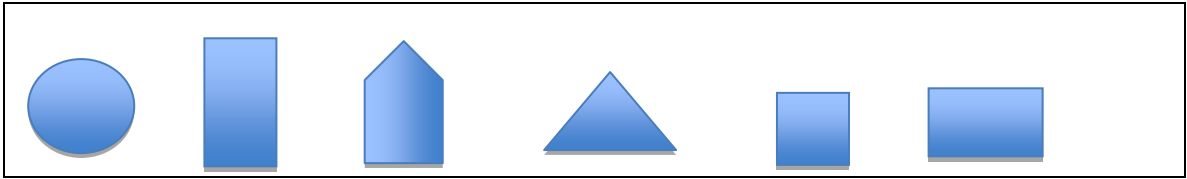


- 1- Leja pa bintu kayi padibo basangana mulongo mukobama mujima:
- 2- Leja pa bintu kayi padibo basangana milongo mikosoloka mijima:
- 3- Ela mushonyi pa dibeji dia tuzubu dileja tshipapu tshidi muinshi mua bintu bidi bisanginyibua mu dizola (dikopo dia misangi ya tumata, kaludikilu ka matumba, kadito ka ngalasa, kasheta ka mpemba).
- 4- Jingulula bipapu bishilangana biudi ufuma ku dizola.
- 5- Leja pa bintu kayi padibo basangana bipapu :
 - ☞ bidi kabiyi ne nseka anyi nsongu
 - ☞ bidi ne nseka isatu ne nsongu isatu
 - ☞ bidi ne nseka inayi ne nsongu inayi
- 6- Umvuija dishilangana didi pankatshi pa tshipapu tshia nseka ya momumue ne matumba 4 malulame ne tshipapu tshia matumba 4 malulame.
- 7- Tshibulula bipapu bidi kuinshi eku, bizola pa kadito, pa kulondeshela tutoba ne leja bitupa bidi mua kuambakaja menemene.

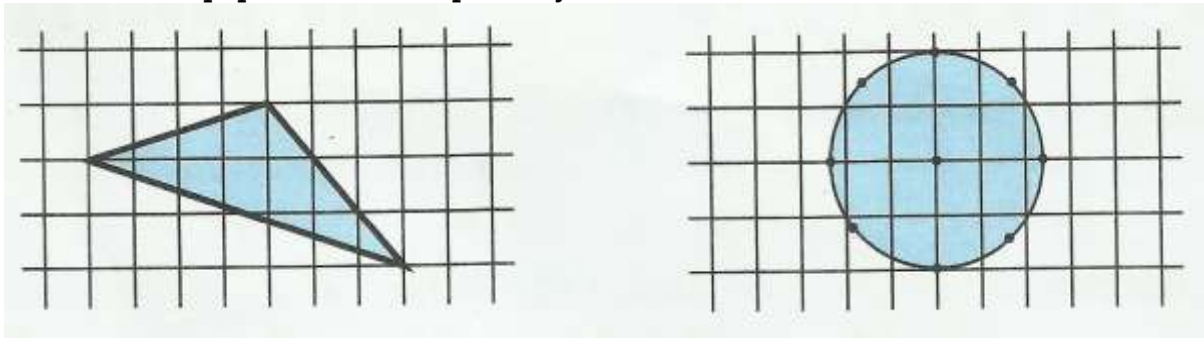


Dibidija nkayebe :

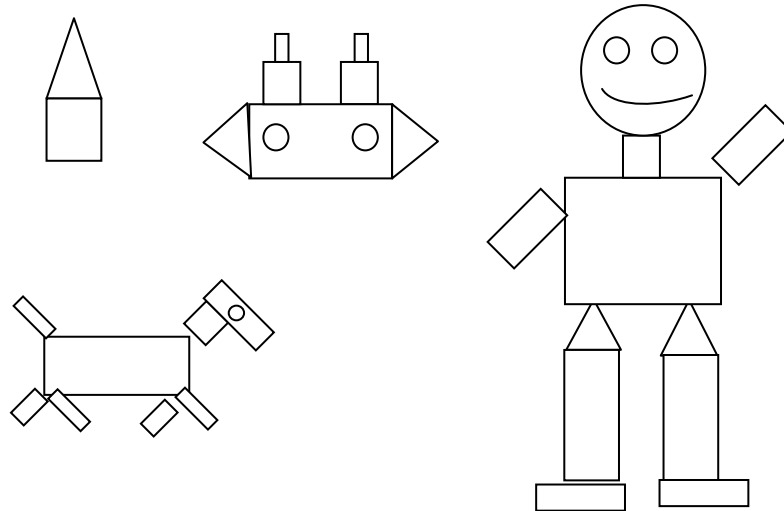
- 1- Munkatshi mua bipapu ebi, leja bipapu bia nseka yonso ya momumue ne matumba 4 malulame, bia matumba asatu, bijengu.



- i. Zolulula bipapu bidi bilonda pa dibeji dia tuzubu.



Ne diambuluisha dia bipapu bitulakaja, Mujinga mmuibaka *nzubu*, *mazuwa*, *muntu ne kabwa*:



Munkatshi mua bimfuanyi bidi kulu ebi, fita mu kaye kebe :

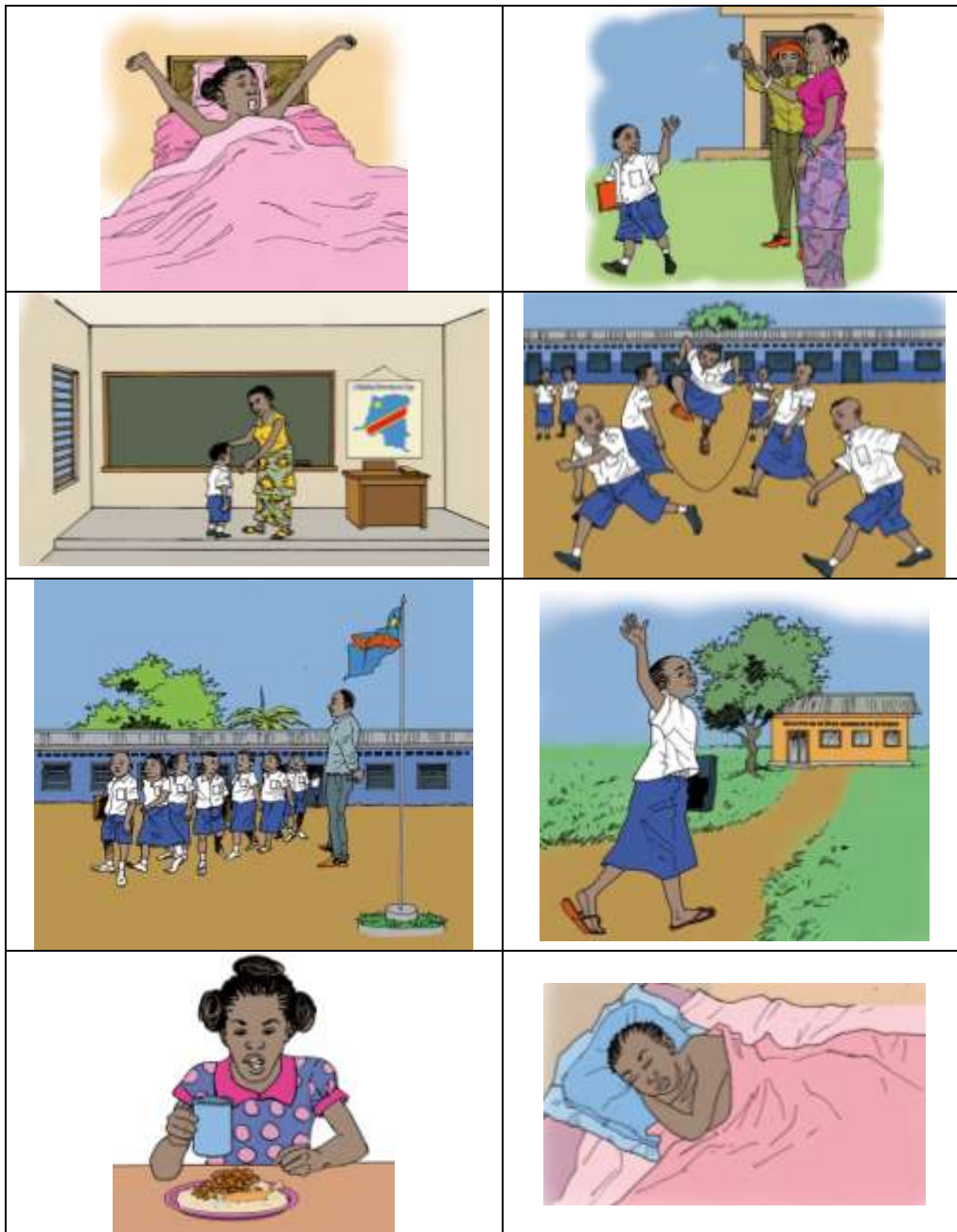
- a) Dikala dia mayi a matamba bua bipapu bia mukokakoka ;
- b) Dikala dia lubule bua bijengu ;
- c) Dikala dikunze bua bipapu bia matumba asatu ;
- d) Dikala dia manyimanyi bua bipapu bia nseka bule bumue ;
- e) Leja bungi bua bijengu, bungi bua bipapu bia nseka ya bule bumue, bua bia mukokakoka ne bia matumba asatu.

MUANDA 22 – DIENZELA MEBE

Malongesha :

- Meba a kujuka ku tulu, kuya mu kalasa, kupatuka mu kalasa, kupingana pambelu, kudia ne kulala ;
- Bitupa bia dituku : dinda, misasa, mujalamu, musendamu, dilolo, butuku, mundankulu ;
- Dibala meba ne tulonda : meba majalama a mu dinda ne a mu ibamulolo.

Mulongi Muaku udi mutantshi ne tshilongelu tshiende. Udi ulonga mu E.P.II Tutungunuka. Mona mudiye upitshisha diba diende dileja mu bimfuanyi ebi.



1- Tentulula tshiata tshidi kuinshi eku ne tshilamakaja ne tshikondo tshionso tshia dituku.

Dinda	Mujalamu	Dilolo(iba mulolo)	Bufuku/butuku

2- Ambuluisha Muaku mua kulongolola diba diende dia mu difuku.

Diba dia 7	Diba dia13	Diba dia10	Diba dia 20	Diba dia 6	Diba dia 15	Diba dia12	Diba dia18
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3- Leja mianda ya kumpala ya mu dinda ne ya diba dia musendamu.





4- Tela muanda onso pa diba didi diukumbanyina.

Teya Ntema: mianda eyi kayena mu mulongo to.





- | | |
|--|-------|
| a) Muaku udi ulala pa diba dia | _____ |
| b) Muaku udi ujuka ku tulu padia | _____ |
| c) Kalasa ka Muaku mu dituku kadi katuadija pa diba dia | _____ |
| d) Udi umbuka ku nzubu pa diba dia | _____ |
| e) Udi udia pa diba dia | _____ |
| Muaku wangata tshiakanzala tshienda mu dikisha dikesa pa
diba dia | _____ |
| f) Malongesha a dituku a Muaku adi ajika pa diba dia | _____ |
| g) Muaku udi upinguluka ku mbelu pa diba dia | _____ |

5- Meta waleji pa diba dia tulonda didi kuinshi eku meba adi ku mutu aa matshiompakaja :

Kumpala kua mujalamu

			
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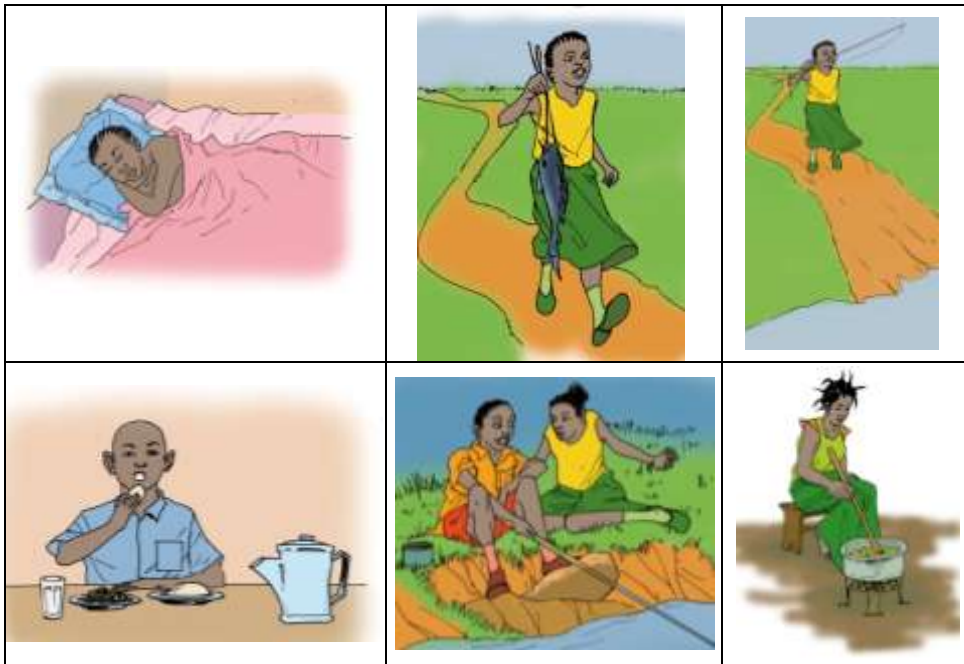
Kunyima kua mujalamu

			
.....

- a) Bala diba mutangila kalonda kakesa ne difunda mu kaye kebe.
b) Teka mu mulongo meba bilondeshele mudi mianda ipitakana.

Dibidija nkayebe:

Kenketa muanda pa dizola didi dilonda edi:



1- Teka muanda ne muanda mu diba diawo ne funda mu kaye kebe :

<p>a) Kapinga udi uya ku musulu pa diba dia...</p> 	<p>b) Kapinga udi ulamba tshiakudia tshia mu dinda pa diba dia....</p> 
<p>c) Udi uya kutuwa pa diba dia...</p> 	<p>d) Udi upingana ku nzubu pa diba dia...</p> 
<p>e) Udi udia pa diba dia...</p> 	<p>f) Udi ulala pa diba dia...</p> 

MUANDA 23 – BUDIMI BUA BALONGI

Malongesha

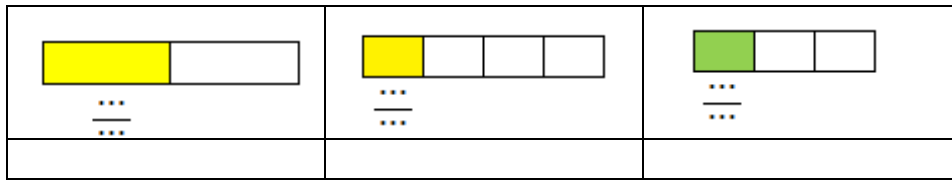
- Meba a kujuka ku tulu, kuya mu kalasa, kupatuka mu kalasa, kupingana pambelu, kudia ne kulala
- Bitupa bia dituku : dinda, misasa, mujalamu, musendamu, dilolo, butuku, mundankulu
- Dibala meba ne tulonda : meba majalama a mu dinda ne a mu ibamulolo

Balongi ba EP II MUANGU ku muntu ne ku muntu badi bela mayi ku tshitupa tshimue tshia budimi bua balongi buikale mushindu wa tshipapu tshia matumba anayi malulame. Ambuluisha mulongeshi bua abanyina balongi tshitupa tshia tshipapu tshia kuela mayi.

Mulongi Ntumba	Mulongi Kalala




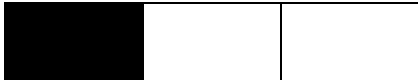


1. Balongi 2 badi ne mudimu wa kuela mayi, ku muntu ku muntu, pa tshitupa tshia momumue tshia budimi.
 - a) Mmubitupa bungu munyi bidiye ne bua kuabanya budimi ebu ?
 - b) Zola mu kaye kebe tshimfuanyi tshidi tshileja budimi.
 - c) Ela mulongo udi uleja tshitupa tshidi mulongi yonso ne bua kuenzela mudimu.
 - d) Tshitupa tshia budimi tshidi muana yonso ne bua kumiamina mayi tshidi tshimueneka mushindu kayi ?
 - e) Mushindu kayi wa kutshifunda ?
2. Ambulula nkonku ya momumue bua balongi basatu, pashisha bua banayi
3. Bala bitupa bipeta:
 - a) $\frac{1}{2}$ udi ubadibua
 - b) $\frac{1}{3}$ udi ubadibua
 - c) $\frac{1}{4}$ udi ubadibua
4. Tangila mukaba wa dibeji uleja budimi :
 - ☞ Bunya mu bitupa bibidi bia momumue ;
 - ☞ Balula ne laba dikala ku tshia bibidi tshimue ;
 - ☞ Funda tshipese tshia makumi tshidi tshikumbana ;
 - ☞ Bala tshipese tshia makumi tshiudi mufunda.

5. Tentulula ne kumbaja:

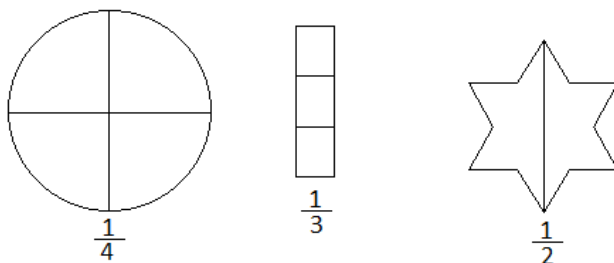


Dibidija nkayebe:

1. Enza bia momumue ne funda mu kaye kebe bitupa bipandulula bilaba dikala pa tshimue ne tshimue tshia bipapu :

- a) 
- b) 
- c) 
- d) 
- e) 
- f) 

2. Enza bia momumue ne laba dikala pa tshitupa tshifila



MUANDA 24 – DITUTA NDUNDU MU KAZUBU

Malongesha

- Dienza nshinga ne miaku misunguluke miangatshila ku bishiferi anyi ne bimfuanyi bisungula mu nsombedi pa disangisha ne diumbusha
- Nshinga ya mukana anyi mifunda pa dibala dia bantu mu bisa anyi mu mashinyi, dia bintu biambula anyi bia kuambula, n.b.

Balongi babidi ba kalasa ka kumpala ka E.P. 2 BUDIKAIDIDI badi bazaba ku dituta dia ndundu mu tshipalu tshia tshilongelu tshiabo. Umue ne umue wa kudibo udi ne bua kukuma misangu dikumi. Muala udi wobesha tundundu 8 ne Kabeya tundundu 5.

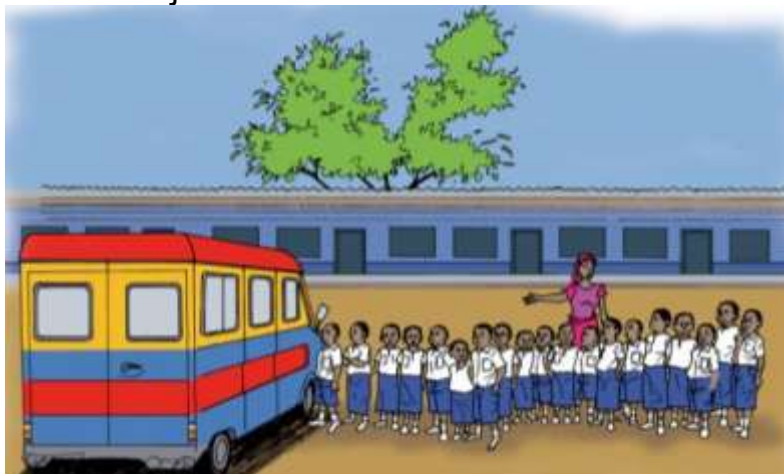
Sulakaja muanda eu ne andamuna ku nkonku idi ilonda eyi :

Mu tshipalu mudi bantu bungu munyi ?



Banayi babidi aba mbatuta ndundu bungu munyi mu kazubu ?	
Ndundu bungu munyi misanga ivua miela kudi banayi babidi ?	
Munayi yonso mmupangila tundundu bungu bishi?	
Ntundundu bungu munyi tusanga tudibu bapangila ?	

1. Balongi dikumi ne tshitema ba kalasa ka kumpala A ka E.P. 2 DITUNGUNUKA ne mulongeshi wabo Kanyebe badi bela menji a kuya kumona Dijiba dia Munkamba. Mashinyi adi ne bua kubambula adi amu ne miaba 14. Joja tshimfuanyi tshidi kuinshi etshi ne fuka nshinga ne mujandula bilondeshela bidi bileja ebi

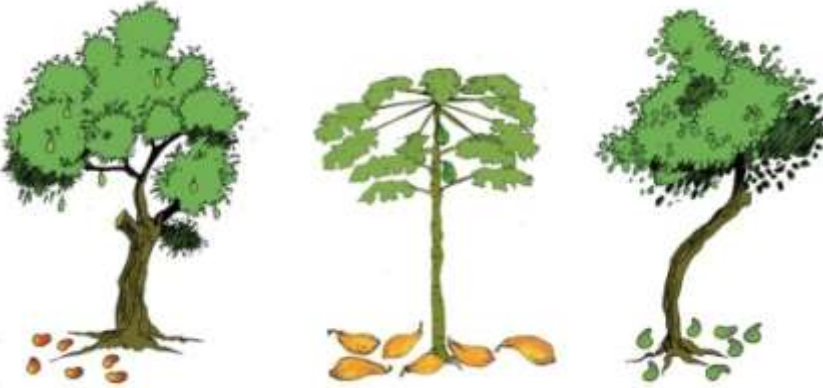


Bantu bungu munyi badi ne bua kuya ku dijiba dia Munkamba ?

- 1) Mu mashinyi mudi miaba misanga yonso bungu munyi ?
- 2) Enza nshinga (diela nkonku) ne bidi bileja ebi ne mujandula.

Didibidija nkayebe :

1- Dizola didi kuinshi edi didi dileja mudi bimuma bimata muinshi mua mitshi. Fuka nshinga, udiela nkonko ne bidi bileja ebi ne umujandula.



2. Dileketele wa tulasa mmumuna nyama. Munkatshi muayi mudi mbuji ne mikoko.



a) Joja tshimfuanyi tshidi mu kazubu konso ne diela nkonko.

b) Funda mu kaye keba bidi bikumbanagana ne mianda eyi ne enza makumi.

3- Tshitunga tshidi munda muatshi ne bimuma bia olanje 8. Udi welamu kabidi olanje 7. Kalonji udi upatula olanje 2 mu tshitunga. Mu tshitunga emu mmushala bimuma bia olanje bungu munyi ?

4- Kalambayi udi ne bidimu 8. Mmutuadija kunaya mabi utshidi ne bidimu 4. Neikale ne bidimu bungu munyi mu bidimu 3 bivuvua ? Tentelula mu kaye keba ne sungula diandamuna dilenga :

- a) $8 + 3 + 4 =$
- b) $8 + 3 =$
- c) $8 + 4 =$
- d) $3 + 4 =$

MUANDA 25 – MU BUDIMI

Malongesha

- Dibadika nomba ku 0 too ne ku 20 ; ku 20 too ne ku 0
- Disuikakaja ne disulakaja mu divudija dia nomba : ku 0 too ne ku 20
- Difunda ne dibala nomba ku 0 too ne ku 20
- Misangu ibidi, tshia bibidi, misangu isatu, tshia bisatu, misangu inayi, tshia binayi tshia nomba udi munkatshi mua 0 ne 20
- Nshinga mitekete idi ileja mua kukeba mushindu wa kuangata nomba misangu ibidi, mu tshia bibidi, misangu isatu, mu tshia bisatu, misangu inayi, mu tshia binayi ...

Kuenji lupepele lukole, mu budimi bua MBALA mangeya a bungu mmamata. Udi uangula ne uela ku dimue ku dimue mu bitunga.

Ambuluisha Mbala bua apeta bungu bua mangeya mu tshitunga tshionso.



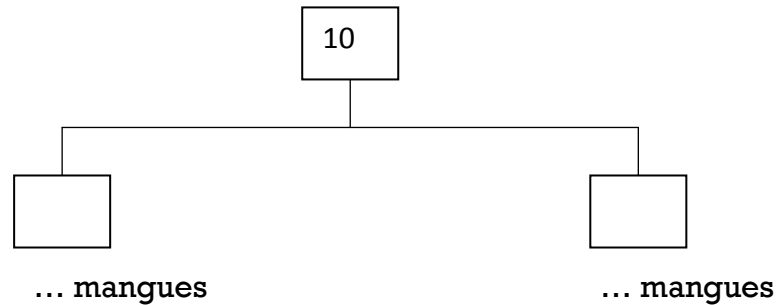
- 1 – a) Badika mangeya mamata ne aleja mu kaye kebe ku tujengu
b) Teka nimelo pa mangeya onso adi mamata
c) Kunguja tujengu tuebe mu bungu bua bitunga
d) Leja bungu bua mangeya adi mu tshitunga ne tshitunga.
- 2- Pikala Mbala muangata bitunga 2, neela mangeya bungu bishi mu tshitunga tshionso ?
- 3- Pikala Mbala muikala ne bitunga 4, neela mangeya bungu bishi mu tshitunga tshionso ?
- 4- Petaku bungu bonso bua mangeya bu bikala Mbala muangata amu:
 - bitunga 4 bikala ne mangeya 4 ku tshitunga ;
 - bitunga 2 bikala ne mangeya 9 ku tshitunga ;
 - bitunga 4 bikala ne mangeya 5 ku tshitunga.

5- Mianda mienza mu makumi

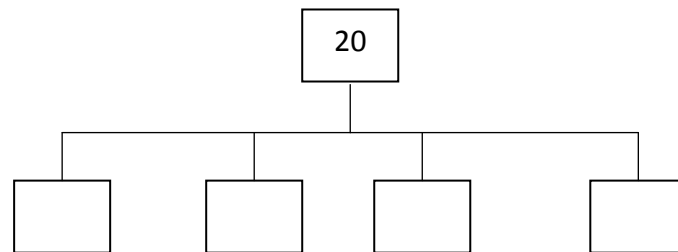
1. Matamba a mitshi idi ilonda eyi adi aleja bungu bua bitunga.

Kenketa, tentulula mitshi mu kaye keba ne kumbaja bia momumue mu tuzubu:

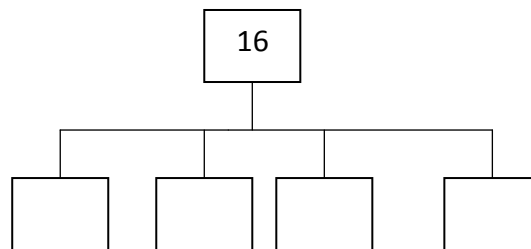
Mutshi wal



Mutshi 2



Mutshi 3



2. Bua midimu idi ilonda eyi, amba nimelo wa mutshi udi mukumbanyina:

a)	$10 \times 2 = 20$	$10 \text{ misangu ibidi} = 10 \times 2 =$	Mutshi :
b)	$2 \times 10 =$	Tshiabibidi tshia $20 = 20 : 2 =$	Mutshi :
c)	$4 \times 5 =$	$5 \text{ misangu inayi} = 5 \times 4 =$	Mutshi :
d)	$5 \times 4 =$	Tshia binayi tshimue tshia $20 = 20 : 4 =$	Mutshi :
e)	$2 \times 5 =$	$5 \text{ misangu 2} = 2 \times 5 =$	Mutshi :

3. Tentulula ne suikakaja popamue nombwa wa tshitupa ku diabanya didi dikumbanangana nende :

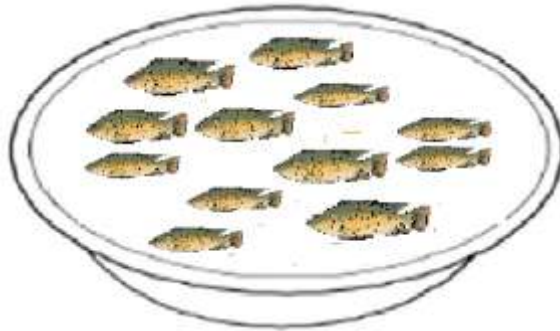
$\frac{1}{2}$ de 10 $16 : 4$

$\frac{1}{4}$ de 20 $10 : 2$

$\frac{1}{4}$ de 16 $20 : 4$

Dibidija nkayebe

1. Zola tshimfuanyi tshidi kuinshi etshi mu kaye kebe.



2- Badika bungi bua mishipa idi mu dilongo

- a) Kunguja mishipa mu tusumbu 2
- b) Badika bungi bua mishipa idi mu kasumbu konso
- c) Peta tshia bibidi tshia 12

3-Kunguja mishipa mu tusumbu 4 tua momumue

- a) Badika bungi bua mishipa idi mu kasumbu konso
- b) Peta tshia bibidi tshia 12

4- a) Wewa mubadika misangu 2 mishipa 10, udi upeta tshia misangu 2 ya 10, mbuena kuamba ne...

b) Wewa mubadika misangu 4 mishipa 5, udi upeta tshia misangu 4 ya 5, mbuena kuamba ne....

5- Bua mianda yonso, tentula mu kaye kebe ne sangisha popamue bienzedi bidi ne mandamuna a momumue :

$$2 \times 10 =$$

$$4 \times 2 =$$

$$\frac{1}{2} \text{ de } 20 =$$

$$2 \times 5 =$$

$$4 \times 3 =$$

$$\frac{1}{4} \text{ de } 20 =$$

$$2 \times 3 =$$

$$4 \times 5 =$$

$$\frac{1}{2} \text{ de } 10 =$$

1- Mulongeshi Mbala udi uteka keleyo 20 pa mesa. Mishiki bungi bishi idi mulongi Mpinga mua kuenza ?

- a) ya keleyo 2 ?
- b) ya keleyo 4 ?
- c) ya keleyo 10 ?

Mpwe ... /6

2- Tentula ne kumbaja :

- a) $20 = 4 + \dots$
- b) $8 + 12 = \dots$
- c) $14 + 6 = \dots$

Mpwe ... /6

3- Tentula ne enza makumi :

- a) $7 \text{ kg} + 6 \text{ kg} =$
- b) $19 \text{ ℓ} - 8 \text{ ℓ} =$

Mpwe ... /4

4- Teka mu mulongo dipitshisha dia meba dia Muamba mu dituku pa kuleja mu kaye kebe mudi meba a midimu yenda malondangana.

Mpwe ... /4

Muamba udi mulala	Muamba udi wenza mudimu mu kalasa	Muamba udi wowa mayi	Muamba udi udia didia dia dilolo	Muamba udi uvuala inifoloma	Muamba udi uvuala inifoloma	Muamba Udi uya mu kalasa	Muamba Udi unaya, mu dikisha dikesa
...
Diba dia 13	Diba dia 7	Diba dia 20	Diba dia 10	Diba dia 6	Diba dia 18	Diba dia 2	Diba dia 15

5- Leja bipapu, bidi padibi bibunya bilondeshele tutoba, bidi biambuluisha bua kuikala ne bitupa 2 bitentakaja. Munkatshi mua bipapu ebi, leja tshipapu tshia nseka ya momumue ne tshia matumba 4 malulame.



Mpwe ... /5