

## **K'OT'OK -IKA**

1. 100 (bal) bøborfetso beyiru s'een taawotsi dabonat k'awona (26 perediya)

k'os' jamwetsi :- daniruwats danhan bo'eeke okona

- bodabo lool bodet s'een taawotsi dabituno
- giit fideli detsts s'een taawotsatse ik fideii detsts s'een taawotsi k'awituno
- dabonat k'aw fiinots dagowotse beyiru jagewo galituno.
- dabonat k'awi problemiysh ariyo imetuno
- dabi wonawoneyi newo danetuno
- k'awi doyotsi dandek'e tuno
- jaando de'er Aatotsi fiinituno
- yotsi genz tatsi kaiyotsi galituno dan aayiyi k'ac'wetsi

### **Ariya**

- abakesiya
- flesh kardiya
- dabijanda
- k'awi janda
- santima
- metra (genztatsi kac'a)
- Inda
- zzra

### **Daniyiruwo fiina**

Haniyeshin daniruwats 20 yo bborfetso beyiru taawotsi dabonat k'awon terwerrno. Hanatse tuwer ni daniyi k'ac'o de'erni lool boborfetso beyiru s'een taawotsi dabonat kawan shuuts anar silo geyituwe. Aani detsfeeto de'e

waf s'een taawotsi daba, gush geyiru s'een taawotsi k'awonat ap'iproblemiyotsi bitso bofalitwo k'o wosho geyituwe. Ani k'oshoni bodants genz tatsi k'acwotsatse turni ka'iyotsi bodonet wek'o wosho geyituwe.

### 1.1. **100 (balo) Bobarfets beyiru s'een taawotsnat 20y0**

**(hiyo) boborfets) beyiru s'een taawotsnat 20yo (Hiyo)  
boberfets beyiru s'een jaawotsi dabonat k'awon shuuts anar  
siila** (4 perediya) k'oswotsi daniruwets han bodank're okona:-

- \* bodabo 20 y bodet s'een taawotsi dabituno
- \* giit s'een taawots k'osh k'osheyo geytuno
- \* dabi fiinotse woniyeyiruwets k'awuntso geyituno
- \* taawi s'eenmatsi keewotsi fiinituno
- \* 20yi bodet dabiap'I problemiyotsi galituno
- \* 20y bodet k'awi ap'i preblemiyotsi fiinituno
- \* ayiyere 10ts imet s'een taawetsi bo ayiyotsn keewituno
- \* ayiyere 1ots imet s'een taawotsi bodabeyo tsnto keewituno.

## **Daniyiruwo fiina**

### A/ **Shini k'ana**

Daniyiruwoni k'aat'ots (daniyo) bkindftsere shini haniye dash fiints keewanotsi k'aldek'o (k'andek'o) b̄geyituwe.

- gitsik'opi tookani daniftsere shini ikl kaat'o tsere 20yi bobor fetso beyiru s'een taawotsi dabonat k'aawon bodantsok'o bosh gawiyo geyituwe. Eshna shuts anar s'iilesh bayituwok Aatotsi k'anidee daniruwets mas'a fates beyiru terwerotsi shengsh k'anidee tintso geyituwc manatsnoye 1ool boborfetso beyiru s'een taawotsi dabonat k'awona etiruwo daniyosha hank'o k'andee tiino geyituwe.

## **Dan Aayiyik'ac'a**

### **Ariya**

- abakesiya
- flesh kardiya
- dabi janda
- kawi janda
- santima
- ayirere lots imet fideliy dabana  
k'awonat Ayiyi fin detsts flesh kardiyana

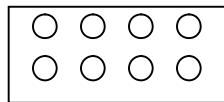
Bi/ danonat daniyi amatse dan t'iint'iina

1.1.1 ik-k'at' taawu danotse 20yo bborfetso beyiru s'ee taawots dabonat k'aawon, ani loolo bborfetso beyiru s'een taawotsi dabonat k'aawon danbode k'tso k'o danefe. Eshna shuutsanar'iilanats s'ooodeerni daniruwotsntona 20yo boborfrtso beyiru s'een taawotsn dabonat k'aawon shuuts anar siila.

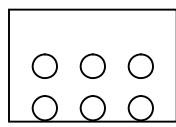
### **A/ 20yo bberfetso beyirutaawetsi daba**

Haniye danbi t'intsetsok'ona 20yo bborfetso beyiru seen taawotsi giitoko ko'irni ko'imani tsawotsi ani bo'ahoshok ko'irni Handir kaimani taawurni ene k'iyetse giit k'iyotso dab bwoto daniruwots sh kewurni haniye dashe bét'intsı weranna daniruwetssh ak'marats k'o'orni bodabo ambts bwotitwoko bon aato geyituwe.

**Ariyi 1**

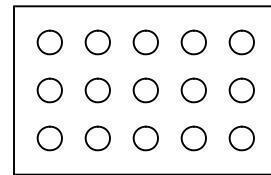


9



+

6



= 15

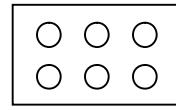
**Ariyi 2**



3



3

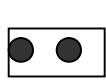


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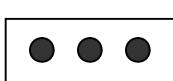
6

Noganoke datseyar ko'i dozosh faletwotsi, shuuts ko'k'ro karamelo, cokiyenat k'oshk'osh wotsn de'e warni giitoko weyinmo I kok ko'irni dabi s'een matsu kewo sheng shde'e boden deketuwoko k'alofale tuwe.

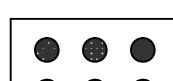
**Ariya**



3



3



= 6

k'I 1<sup>ts</sup> keez shutswotsi, ki2<sup>ts</sup> ani keez shutswotsi gedno k'ryere okona k'i 3 tsa, k'I 1nat k'i2n ikats gerni taawets s'een matsu kewo kiitso faletwe manatsnowere ik'or aatotsi niyir niyiron de'am aak' marats k'op'ir boshiye twwok'o k'alofale yituwe.

**Ariyi A** S'een matsu kewotse shumt (8t) dabots ar bo woto  
bokeewitwok'o k'ala.

$$8 = 0+8$$

$$8 = 5+3$$

$$8 = 1+7$$

$$8 = 6+2$$

$$8 = 2+6$$

$$8 = 7+1$$

$$8 + 3+5$$

$$8 + 8+0$$

$$8 = 4+4$$

## **Bi, dabere7t bowoto Ariya**

$$7 = 0+7 \quad 7 = 4+3$$

$$7 = 1+6 \quad 7 = 5+2$$

$$7 = 2+5 \quad 7 = 6+1$$

$$7 = 3+4 \quad 7 = 7+0$$

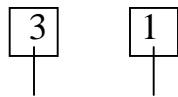
Hamiye dambi tit'se tsanots 8tonat 7t dabeyi ar bowotok'o danide k'osha, danayik'a c'on galo geyituwe.

## **Ariya**

A. Flesh kardiyo k'anide'eni dab ariyotsna daniruwots bo tokon fiinde'e war bodane tuwok'o weer kiitso geyituwe.

$$3+1 = 4$$

$$4+0 = 4$$



$$2+2 = 4$$

s'een taawotsi kartonyon woyin miton/t'awlan finets aak' marats k'op'osh taw '4' imet giit s'een taawotsi detsts aak' marats daniruwats btokn (kishan) bokitsitwok'o k'alrni  $3+1 = 4$  etiruwona bokitsitwok'o k'alonatni hanweeron k'osh aatotsi boterwer ituwok'o k'alo geyituwe, manatsno daniruwots jama etiru taawitanman boke wituwok'o wosho geyituwe. 3 natlna dabeyiruuatsieta eteso '4' nmo jama eta'etefo er shanide'e kewurni k'oshwetsi hank'on bokewish gowo imrni dan bodek'etwok'o wosho geyituwe.

Bi/ Jandode'er daniruwots dabi arwoto (aro) danbodek' etwok'o wosha.

manbwetiye, jam taawi s'ap'wetsi detsk bwottoshe

+	O	1	2	3	4	5	6	7	8	9	10
0	0	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10	11
2	2	3	4	5	6	7	8	9	10	11	12
3	3	4	5	6	7	8	9	10	11	12	13
4	4	5	6	7	8	9	10	11	12	13	14
5	5	6	7	8	9	10	11	12	13	14	15
6	6	7	8	9	10	11	12	13	14	15	16

Jaandan aak marars k'o'orni awuk'o dabeyiru wok'o daniruwots ikikon (niyiron) tuwur baash beyokats bos'entsituwok'o k'alo geyituwe. mana tsno ariyo imrni daftarats boseentso shengsh s'ilo geyitwe.

Daniruwotsi haniye danbi kewetsotsatse tuwurni bodandek'o kup'idek' werona bodetsts dana enshde'eni dabonat wonawoneyi newana ariyon tizde'e kewurni dano shiyewon tuwo geyituwe.

### **Ariya**

$$A/ 3+6 = \underline{\hspace{2cm}} \quad Bi/ 6+3 \underline{\hspace{2cm}}$$

$$C/ 4+6 = \underline{\hspace{2cm}} \quad Di/ 6+4 = \underline{\hspace{2cm}}$$

$$E/ 2+3 = \underline{\hspace{2cm}} \quad Fi/ 3+2 = \underline{\hspace{2cm}}$$

Giit daniruwotsi tizrni iko 'A' shirots beyiruwo giit lna'o 'Bi' shirots beyiruwo aak' marats bofinituwok'o woshuwe. Bogtits fiini k'awuntso taal bwotonat bk'a zon daniruwets s'iilo bofaliuwok'o gowo imr danbodek'e tuwok'o wosho geyituwe. Manatsnowere hanton ik arts aatotsi jam daniruwots terweratse beyiruwetsi bofiinituwok'o kup'it keewo boosh iimogeyituwe.

$$\textbf{Ariya} \quad A/ 3+6 = 6+3 \quad Bi/ 3+6 = 6+4$$

$$Ci/ 9+8 = 8+9 \quad Di/ 5+5 = 5=5$$

Git dabeyots (jamo) bewoko bowoneyal dabe ts jamman bowo nirawk'o wo daniruwotssh keewo geyituwe.

s'een taawots shatde ed' falituwu wonef fideli wotsi dabi s'een matsi kewotse haniye dashtsank'o k'alde'e kiitso geyituwe.

$$\textbf{Ariya}: A/ 3+Bi = 5 \quad \text{Eshe } Bi = \underline{\hspace{2cm}}$$

$$Bi/ 4+A = 10 \quad \text{Eshe } A = \underline{\hspace{2cm}}$$

$$Ci/ 9+ke = 10 \quad \text{Eshe } k'e = \underline{\hspace{2cm}}$$

Haniye danbi t'iintsetsanatsi (ariyotsi) jaand weeron kiitsr ayide'e nibnbodeketuwok'o kalo shengetuwe.

A	Bi	A+Bi
3	5	
7	3	
12	6	
4	14	

$$\text{Jamona } A+Bi = 3+5 \quad A+Bi = 7+3$$

$$= 8 \quad = 10$$

Aak' marats fiinarni k'osh baash bewokotsi daniruwots botokon bos'eentsitwok'o woshrni daniruwots matsafatse beyiru terberman bofinit wok'o k'aluwe. dabi s'een matsi keewotsi oriyirni “ = ”, “ < ” nat “ > ” milkitwots/ c'rwtots de'e ariyon te'ude'e kitsr daniruwotsi han danbodek'etwok'o kup'yo geyituwe.

Ariya      A/ 5+2 < 6      Bi/ 4+3 >3

Ci/ 9+8 =17      Di/ 9+10>18

Hanarts aatotsi aak'marats k'o'or taalituwe (=) bogetuwe (>) muk'ituwe (<) etiruo milkitwotsi (c'irwotsi de'er s'een matsi kewotsi fiino bofac'itwok'o daniyo geyituwe. Hanora s'een taaw ots shine shuutso danafneeta. Anni dabon fiinet aap'I problemi yotsi bitsonat tanon bofaluwok'o daniyiwe. jamona daniruwots mafafatsi terweretsitse 1,2,3 ma'a' fiinnonat k'aart' fiinon bofinitwok'o k'alni dab tano bofaluwok'o k'up'iyo geyituwe "manatsna bo'aniyosh ar aniyoimrni bodaftarats k'oobo dek'etuwo k'up'iyo geyituwe.

Bi/ 20 bborfetso beyiru s'een taawotsi k'aauda

Haniye shin daniruwotsi 1tse tuwur 20yo bberfetso beyiru s'een taawotsi k'aua tana bodanalorni hanokna shengsh danbodek'etuwo k'up'iyo geyituwe. shuuts anars'iilo geyituwe.

Arita      A/ 19-12 =7

19 = bi'atse k'aweyiruwani

12 = k'aweyirywoni

7 = bok'oshewoni

Bi/ 9- 4 = 5

9 = bi'atse k'aweyiruwoni

4 = k'aweyiruwoni

5 = bok'oshewoni

Hannari aatotsi k'anide'e ak' marats k'oor daniruwots botokon k'aawi s'eenmatsi keewotse bi'atsek'aweyiruwona woshuwe. manats nowere shengsh danbodek'o nodaniye okon tewr4er 4 do ma'a' fiinonat k'aat' fiinona er ka'ide'e imr bofiinituwok'o woshuwe.

k'awitani jando ak'marats k'oor daniruwots shengsh boterwe  
rituwok'o wosho shenge tuwe.

### **Ariya**

-	0	1	2	3	4	5
15	15	14	13	12	11	10
16	16	15	14	13	12	11
17	17	16	15	14	13	12

Jandana nalk'o mon dashan nababo bofaluwok'o woshe geyituwe. maniye okona terworwotsi imrni bofinituwok'o woshrni boaniyosha arianiyo imr bodaftarats k'oo bodek'etuwo k'o woshuwe. Maniye okona k'a'o shengsh bodanisha dabonat k'au jageyo bokewituwo k'o ariyonte'udee kitso geyituwe.

$$\text{Ariya} \quad A/ 4-2 = 2 \quad \text{hanbwottsoni } 2+2 = 4$$

$$Bi/ 13-3 = 10 \quad \text{Hanbbottsoni } 10+3 = 13$$

$$Ci/ 19-8 = 11 \quad \text{Hanbwottsoni } 11+8 = 19$$

Hank'o aatotsi aatr daniruwotsi niyiron bokewituwo k'o woshr boaniyono ariyir (ariyoimr) danobodetsetuwo k'o wosho geyituwe.

Manatse aani terwer 5 tatse beyiru aatotsi ma'a' fiinonat k'aat' fiinonaerr cim bofinituwok'o k'op'iyo geyituwe.

Dabi s'eenmatsi kewotse nofiintso k'owa k'awi (ka'u) s'een matsi keewotse wonawonefetsi de'e tano faletuwe.

### **Ariya:-**

$$A/ 8-3 = A \quad \text{Eshna } A= 5$$

$$Bi/ 6-4 = A \quad \text{Eshna } A= 2$$

$$Ci/ 10-A= 5 \quad \text{Eshna } A = 5$$

$$Di/ A- 6 = 10 \quad \text{Eshana } A = 16$$

$$E/ 4-A = 0 \quad \text{Eshna } A = 4$$

Hannari aatotsi ak' marats k'oorni wonawoneyiruwotsi fiino kiitsrni daniruwots botokon bofinituwok'o woshuwe. Jaando de'erni bodano ayide'e kupiyo geyituwe.

**Ariya A/**

A	Bi	A-Bi
5	4	5-4 =1
10	6	
9	8	
20	10	
15	5	

**Bi/**

K'e	Be	K'e-Be
5	1	5-Be =4
8	Be	8- Be = 4
K'e	10	K'e -10 =0
12	Be	12 –Be =10
K'e	8	K'e -8 =10

Hanank'o jaanduwotsi k'anideer ni dani ruwots bodane tuwok'o yiyo geyituwe. manatsnowere terwoer 5tsatse beyiru aatotsi maa fiinonat k'aat' fiinon kaidee bofiini tuwek'o woshuwe.

k'aawi s'een matsi keewotse (=), (>) nat (<) etiru c'iranotsi de'er ariyonte'udee biitsr daniruwots danbode k'etuwork'o wosho faletuwe.

**Ariya**

A/  $8-8 = 0$

Bi/  $15-3>10$

Ci/  $7-4 <5$

Di/  $10-5>3$

Hannari aatotsi ak'marats k'oorni daniruwots bokeweyiye okona bomas'afatse tookan shirotse beyiru aatotsi bofinituwok'o woshr aayiyewe manatsno k'awiaap'i problemiyo biishrni ariyon teude'e keewrni boshiyeyiye'okona terwerorsi bofiini tuwok'o wosho geyituwe.

### **1.1.2. 1oo bborfetso beyiru s'een taawotsi**

#### **shuuts anar s'iila**

Daniruwotsi otse tuwur loolo bborfetso beyiru s'eentaawotsi nababonat k'op'on ik (1u) k'aat'otse danrno. Hanokna k'ats s'een taawotsi

nababona, fideliyen k'op'onatni taawon bok'opetuwo'k'o woshr tuwo geyituwe.

**Ariye** A/ 20 = hiya Bi/ 30 = shaasha

Hanarts ariyotsi ok'marats k'oorni bonababituwok'o aani bok'op'etuwok'o k'ala (wosha). Manatsno 20tse tuwurr 1olo bborfetso beyiru (lots onanitsotsi) s'een taawotsi ak' marats k'o'orni eyiruwetsn bokewituuwok'o wosho geyituwe.

**Ariya** A/ 20 =  $2 \times 10$  Bi/ 30 =  $3 \times 10$

Hannari aatotsi bofiinora 1otsisantimuwo'tsi de'erni 5ts10ts santima 7ts10ts samtima, 9dilots santima--erni haniye dantintsets aatinarotsi de'erni bo'ayo bokewituuwok'o k'up'iyo geyituwe.

5ts10ts santima =  $5 \times 10 = 50$

7ts10ts santima =  $7 \times 10 = 70$

9di10ts santima =  $9 \times 10 = 90$

hannton deshide'erni "ayiruwots" konotsi (awotsi) boyetok'onat bo'aya (jamo) etiruman daniruwotssh daniyo (keewo) geyituwe.

$5 \times 10 = 50$ , 5nat 10 tsona ayiyiruwotsi

50 tsonmo ayitsoni (jamal) eta etefo

erkeewi manatsno ani k'osh aatotsi flesh kardiyots k'anide'erni daniruwotsna gaarewon kayirni ikgaarewoni arewoni ayiyiruwotsi detsts flesh kardiyo, gitl gaarewonmo ayitsots (jama) detsts flesh kardiyo de'e warni haniyedashit'in tsankoweron kewo geyituwe.

3x10

30

Hanora 3zati 1otsa etiruflesh kardidetsts gaarewots bokishrna 30 etiru flesh kardidetsts gaarewots bi'atse anar bekishituwok'o nk'aleokona okona tewr erotsi bofiinituwok'o wosho geyituwe.

Giirl weeroni s'een taawotsi bodabey wotsn tsntbad'iyir kitso faletuwe.

**Ariya** A/  $50 = 40+10$  Bi/  $50 = 30+20$

Haniye danbi t'intsets oriyotsatse tuwurni 10 tsen ayits s'een taawotsi bodabewotsn bad'irni ak'marats k'o'orni daniruwots botokona niyirniyiron tuwurni bobad'itu wok'o k'alo geyituwe. Hanora eshe 10ts santimuwotsi de'er kitso faletuwe.

### **Ariya**

70 santimo ambts 1otse santimo bdetsok'o aatr  
bokeewituwok'o woshuwe.

7t lots santime bdetsi er bokewi tuwok'o woshuwe

$7 \times 10 = 70$  han bwott soshe er kup'iwe Anini

$70 = 10+10+10+10+10+10+10$  bwoto kewuwe Haniye okona tookhan shirots se beyiru (terw erotsi) ma'a' fiinonat k'aat' fiinon bofiinituwok'o woshuwe.

Jamona 1oola bodetso beyiru s'een taawotsna taawi toos'a abake siyon de'erni boshine shuutso kiitso geyituwe. 1otsetuwur 1oolo bborfetso beyiru s'een taawots giit taawi moo bode tstso k'o manuwe 1otsi monat ikimoon bowotok'o ariyon kiitsrni daniruwots mas' afatse beyiru terwre rotsatse tuwur shuuts anarsiilo geyituwe.

**Ci/ TATSONAT** (k'oorona)

Daniruwots bomas'afatse beyiru dano shengdsh bodano nat eg etesh bágeyiruwok'o desh bodek'o s'iiloge yituwe.

**Ariya** Bodabo 20yo bborfetso beyiru s'een taawotsi  
bodabituwok'o aata.

**Ariya** A/  $5+6 =$  \_\_\_\_\_ Bi/  $11+9 =$  \_\_\_\_\_

- 20yo bborfetso beyiru s'een taawotsi k'awonbofiinituwo k'o aata

**Ariya**

A/  $8-4 =$  \_\_\_\_\_ Bi/  $18-8 =$  \_\_\_\_\_

- wona wone yiruwotsi de'er bodabituwo k'o k'ala

**Ariya**

A/  $10+Bi = 15$  Bi/ = \_\_\_\_\_ Bi/  $3+5 =$  \_\_\_\_\_

- wonawoneyir uwotsi de'er bok'autuwok'o wosha (k'ala)

**Ariya**  $12-Bi =$  \_\_\_\_\_ Bi/  $8-7 =$  Bi = \_\_\_\_\_ Bi/  $8-7 = Bi$ , Bi/ = \_\_\_\_\_

- dabi s'eenmatsi keewotsi ar woshituwotsi “=” “<” nat  
s u“>” etiru ciranots deer aata

**Ariya** A/  $2+3 > 4$  Bi/  $5+8 < 16$

Ci/  $15+10 = 15$  Di/  $6+7 < 14$

- s'een taawotsi shine shuutson bezrni arweshit “=”  
“<” nat “>” etiru c'iranotsi dek'a

**Ariya** A/  $19 > \boxed{10} > 9$

Bi/  $14 < \boxed{18} < 20$

Ci/  $4 = 4+0 = 3+1$

- dabonat k'awi ap'i problemiyotsi aata.
- 1otson ayits s'een taawotsi bodabeyotsn badiyir boke wituwok'o aata.

**Ariya** A/  $90 = 40+50$  Bi/  $80 = 40 +40$

- 1otson ayits s'een taawotsi ayiyiruwotsn bokewituwok'o aata.

**Ariya** A/  $30 = 3 \times 10$  Bi/  $70 = 7 \times 10$

## 1.2 detsfe etonat gushon gegef giit

**fidelivets s'een taawotsats ik fideliyots s'een taawotsi dabonat** k'anona.

Dan k'oos'wotsi :- daniruwots danhan danbokriye okana:-

- Giit fideli detsts s'een taawotsats ik fideli detsts s'eentaawotsi dabituno
- Giit fideli detsts s'een taawotsatse ik fideli detsts s'een taawotsi k'aawitano.
- k'awitanora bok'oshewo dabtanon arweshituno.
- ket wotts k'aú ap'i problemiyotsi fiinituno.

## **Daniyiruwo fiinaa**

### **A/ shini k'ana**

Daniyiruwo daniyosh békin dftsere shinihaniye dashi tints fiinotsi k'alo bish geyituwe.

- Tookhan daniftsere shini daniruwots haniye shini bodants dabonat k'a'on arbéwato bogawish aatotsi k'anide'e t'iitsso geyituwe.

**Ariya** A/  $4+5 = 9$

Bi/  $6+2 = 8$

Ci/  $5-4 = 1$

Di/  $15-4 = 11$

Manatse aani giit fideli detsts s'een taawotsats ik fideli detsts s'een taawotsi dabonat k'aawaetiru woste beyiru terweyotsars shengsh k'ande'e woogeyituwe.

Danaayiyi k'ac'wotsi k'aniya

### **Ariya :-**

- otse tuwur 1oolo bborfetso beyiru s'een taawotsidets flesh kardiya.
- 1oolo bborfetso beyiru s'eentaawotsi detsts dabi jaanda.
- 1oolo bborfetso beyiru s'een taawotsi detsts k'aawi jaanda.
- Abake siya

## **Bi/ danonat daniyi amatse dan t'int'in tina**

Ham daniyiftse shini k'aat' 1.1 tse dabonatka'on bedantso tsna, gawiyosha bodabo 20 niye bowaw s'een taawotsi de'er dabonat k'aú finotsi bogawi tuwok'o woshogeyituwe.

**Ariya** A/  $4+5 = 9$

4 nat 5n dabeyiruwotsi, 9ni jama

Bi/  $6-4 = 2$

6 bœatse k'awayiruwoni 4 ni kaweyiruwoni 2 bok'o  
she tsoni.

Ci/  $10-2 = 8$  hanbwottsoni  $2+8 = 10$

Di/ s'een taawotsi bomoona beeza.

$15 = 1$  tatsonatni 5 ikwotsna.

s'een taawotsi taawonat dabeyiruwotsn kewrni danbi kewets ariyiman k'ona shuuts amar s'iilo geyituwe. Hanaikikon ak'marats k'o'or daniruwots bokewe tuwok'o woshuwe. Maniye okona han bosh bgaltsok'o ndaniye okona handr tookmana kewo geyituwe.

### **1.2.1. Giit fideli detsts s'een taawotsats ik fideli**

#### **detsts s'een taawotsiaba**

Giit fideli detsts taawotsi ikhohe detsts taawotsnton dabosha, giit fideli detsts s'een taawotsi 1otson bo'ayitsonat (jama) ik fideil detstsots dabo (jama) bad'iyir k'op'a.

**Ariya** A/  $23+4 =$  Eetiruwona  $23 = 20+3$  fer badiyi Eerni  
bomaa k'awunton dabrni daniruwotssha ak'marats k'oor  
kiitso geyituwe.

Eshna  $23+4 = 20+3+4$

$= 20+7$

= 27

Bi/

Bwoto ik kon kiitsuwe manatsno k'oshk'osh  
 aatotsi niyirniyiron de'erbofiinituwok'o  
 gowoime. Hanor nak'omand and dabonat  
 dashan dabon bodanetuwo woshi jaando  
 de'erni dabaeteyiruwo bodanetuwo haniye  
 dashtsan k'owon kiitso falletuwe. Hank'o  
 etoni ikimoo ikimowonton bodabituwo kiitsaeta.

+	0	1	2	3	4	5
75						
74						
73						
81						

Aruya:-

A/

+	0	2	3	4	5	6	7
23	23	25	26	27	28	29	30
22							
21							
20							

Otse tuwur loolo bborfetso beyiru s'een taawotsi flesh kardiyo k'anide'e  
 dabo eg bwoto k'o'o shengsh bodanish kup'iyo geyituwe.

Ariya A/ 45+3 Etiruwona 40 5 3

Hank'on k'anide'eni daniru jamo ikikon bode tsetuwok'o woshrni  $5+3 = 8$   
 etiruwona daniru k'atsuwots bokewi tuwok'o woshi. Erni 40+8 Etiruwana  
 daniruwots botokewituwo k'er danbede k'etuwo k'osho geyituwe.

Abakesiyode'er bodabituwo k'up'iwe. Han daniruwoots  
 mas'afatse bék'anetsotsna tatsi moonatiki moon abakesi gumbotse beyiru  
 shutswotsi kewur kiitso geyituwe.

manatsno dati aap'i problemiyotsi bofiinituwok'o woshe ne  
 geyituwe. Jamana haniye danbi kewets weerjamwotsi de'erni daniruwots

dano bodetsetu wok'o woshrni bomasafatse beyiru terwero tsna ma'a' fiinonat k'aat' fiinona er kaide'e imeyiye okona bofiinosh (aniyosh) ariko (aniyo) imogeyituwe.

### **1.2.2. Giit fideli detsts s'een Taawotsatse**

#### **Ik fideli detsts s'een jaawotsi k'awa**

Giit fideliyets s'een taawotsatse ik fideliyets s'een taawotsi k'a'o kitsftsere shini haniye shini bodants k'aú s'een matsi keewo tizrni kewo geyituwe.

**Ariya :-** A/  $9-4 = 5$  hanbwoti  $4+5 = 9$

Bi/  $6-5 = 1$  han bwoti  $5+1 = 6$

Ci/  $9-9 = 0$  hanbwoti  $9+0 = 9$  bwotttoshe

Er daniruwots bokeewetuwo<sup>k'o</sup> wosheyiye okana bomas'afatse beyiru terwerotsi bofiinituwok'o wosha. Manatsna giit fideliyots s'een taawotsi de'erni bo'atse il fideliyetsi ts s'een taawotsi bok'awituwo<sup>k'o</sup> kiitsoshe geyituwe.

**Ariya:-** A/  $14-3$  Etiru k'awi s'een matsi k'eewanitsna giit fideliyets s'een taawona dab tanon bad'ide'e k'o'orni ( $14=10+4$ ) maniye okona iki maa wottsona s'een taawu 4 k'awa ( $4-3=1$ ) Erni  $10+4=3 = 11$  bwoto kitsuwe.

Manatse tuwurm ariyo (aridek'o) bofalituwo<sup>k'o</sup> kiitsuwe.

$$14-3 = 11 \text{ eege } 11+3 = 14$$

Hanotsk'o aatotsi ak' marats k'o'or daniruwots nton keweyo (shiyeyo) geyituwe.

**Ariya:-**  $82-2 = 80+ 4-2$

$$= 80+2$$

$$= 82$$

Hanbwoti  $82+2 = 84$  bwotttoshe

Jamana danonat daniyiamo shengsh kup'iyosha k'awi jaandona, abake siyonatni flesh kardiyon de'e rni dano daniruwots bgalituwok'o woshogeyituwe. Danbe nodek' ts danaayiyik'a c'ac'wotsi dabatse nofiints ok'owa k'aú watsno fiino no bgeyit.

**Ariya:-**

-	0	1	2	3	4	5	6	7	8	9
29		28								
39										
49										
59						54				
69										60

Han n'ishiye okona k'a'u aap'i problemiyotsi bofiinitu wok'o aayir k'up'yo geyituwe. Daniruwots danhan k'os'o (eg etosh bôgetso) bodeshdek'o nat bok'azon danosha bo masafatse beyiruterwerotsi ma'a'fiinonat k'aat' fiinosh k'oide'er imrni bofiints man s'iilr boosh ori'amiyo ime .(dozuwe)

## Ci/ TATSÓNAT K'OORONA

Daniruwots danan k'os'o dambode k'o s'iilo geyituwe.

- Giit fideli detsts s'een taawotsats ik fideli detsts s'een taawotsi bodabituwok'o aato k'anide'e aati.

**Ariya:-** A/  $75+4 = \underline{\hspace{2cm}}$  Bi/  $63+6 = \underline{\hspace{2cm}}$

- Giit fideli detsts s'een taawotsatse ik fideli detsts s'een taawotsi bok'awituwok'o aato k'anide'e aati.

**Ariya:-** A/  $69-9 = \underline{\hspace{2cm}}$  Bi/  $35-3 = \underline{\hspace{2cm}}$

- k'a'onat dabotse ket aap'iproblemiyotsi bofiinituwo k'owoshi
- Haniye danbi daniruwotsitatsósh t'iin tsets aato tsna ma'a' fiinonat k'aat' fiinona er bofiinitu wok'o woshrni daniruwo tsitse k'ats wots tuwur ak' marats bofiinituwok'o woshuwe.

### **1.3. Detsfe Etonat Gushon De'er waaf Giit fideli detssts s'een taawotsats Ik fideli detssts s'een taawotsi dabonat k'a'ona.**

(11 perediy) Danhan k'os'wotsi :- damiruwots danhan boishtsok'ona:-

- Detsfe et de'e waaf giit hoheyets s'een taawotsats ik hoheyets s'een taawotsi dabituno.
- Gush geyef giit hoheyets s'een taawo tsatse ik hoheyets s'een taawotsi k'awituno.
- Ket dari aap'i problemiyotsi fiinituno.
- Ket k'auwi aap'i problemiyotsi fiinituno.

### **Daniyiruw Fiina**

#### **A/ Shini k'na**

Daniyiruwoni daniyots kindftsereshini haniye dashi fiinanotsi fiin dek'o bígeyituwe.

- Took han daniftse shini k'aat' 1.2 tse beyiru dabonat k'aoeg etosh bégeyiruk'o daniruwotssh gawiyosha (bodan) danosha shuuts anar s'iilni aato k'aat' 1.3ts beyiru terwer otsats shengsh k'ande'e t'iino geyituwe.

### **Danaayiyi k'ac' k'aniya**

Ariya:- - flesh kardiya

- dabijaanda
- k'awi jaanda
- abakesiya

#### **Bi/ Danonat Daniyi Amatse Dan JiinT'iina**

Tooaniye shin daniruwots detsfe etonat gushon de'e wafa giit fideli detsts s'een taawotsats ik fideli detsna seentaawotsi dabefok'onat k'owefok'o bodantsna shuuts anar s'iilk'o wesh de'eni daniyosh tuwo geyituwe.

### **Ariya:-**

$$A/ 2+7 = \underline{\hspace{2cm}}$$

$$Bi/ 5-3 = \underline{\hspace{2cm}}$$

$$Ci/ 13+2 = \underline{\hspace{2cm}}$$

$$Di/ 25-4 = \underline{\hspace{2cm}}$$

Hanan k'o (hanarts) aatotsi k'anide'e ak' marats k'oor daniyiruwots dabe jamenat bok'o shk'osheyon bokewituwok'o k'up'iyogeyituwe. Erni daniruwots mas'afatse beyiru terwerotsi bofiinituwok'o woshi Bedets ts danatse tuwur (een) tooko mand bit'iin tsok'oon kindo faletuwe.

#### **1.3.1. Detsfe Et de'e Waaf Giit fideli detsts s'een Taawot**

##### **sats ik fideli detsts s'een jaawotsi daba** (5perediya)

Haniye danbi t'iintsetso k'ona giit fideli detsts s'een taawotsats ik fideli detsts s'een taawotsi dabosh geyewora taawotsi bomoon k'oorni bodabeyo (jamo) datso faletwe.

**Ariya** A/  $18+1 = 10+8+1$

$$= 10+9$$

$$= 19$$

Bi/  $38+1 = 30+8+1$

$$= 30+9$$

$$= 39$$

Danbi t'iintsets oriyimanatse tuwur bodabeyo (jamo) 10tson ayits s'een taawotsi haniye doshi t'iintse tsank'on kiitso faletuwe.

**Ariya** :- A/  $46+4 = 40+6+4$

$$= 40+10$$

$$= 50$$

Bi/  $58+2 = 50+8+2$

$$= 50+10$$

$$= 60$$

Daniruwots giit fideli detsts s'een taawotsi babitanona bad'iyo bodantsotsna tatsimaa s'een taawotsitatsi ma'a' s'een taawotsnton dabr tanarni bojamdabo kiitso bofalituwok'o kiitso geyituwe.

Maniye okana daniruwots mas'afatse beyiru terwerotsna ma'a' fiinonat k'aat' fiinona er koide'e imr bofiinituwo k'o woshuwe.

Danbit'iintsets weeron daniruwots bodaniye okona:-  
“Detsfe” etiruwo eg bwotok'o haniyedashtsank'on t'iitsr daniyo geyituwe.

**Ariya:-** A/  $38+6 = 44$  ikimaa fideli s'een taawodaba  $8+6=14$   
eshna 14'na iki maa shirotsk'oo rni 1 ko detsfo erni 1  
kamona tatsi mootse beyiru taawonton nodabit  $3+1 = 4$   
bodaboni (jamoni) 44 b̄owetitier keewa.

Bi/  $75+8 = 83$  ikimaa s'een taawotsi daba  $8+6 = 14$   
hanora '4' iki maats k'o'orni 1 detsfone noetet  
beyiruwonton nodabit  $1+7 = 8$  bodaboni (jiamoni) 83  
bwotit

Danbi ariyanotsi nos'iiltsok'o wona ikima'a' taawots bodabeyora ambts ikwotsnat ambtstatswetsn nodatstso k'o nat datsetsotsn bomaa k'awntson doz de'e k'op'o bofalfetso daniya geyituwe.

<b>Ariya:-</b>	47	47	47
	<u>+9</u>	<u>+9</u>	<u>+9</u>
	<u>6</u>		<u>56</u>

Shawat (7) ikawotsnat jeed'iyi (9) ikwotsn ikats dabeyor ambts ikwotsne nodatsi ? tatse shirta tatseshirt ikwots ambts tatswotsnat ambts ikwotsneya bweti ? shirto awoke k'op'eye? ik tatsoniye awoke b̄ek'op'e ? uuts (5) tatswots bo'ootats awuk'owe bok'op'e ? oot'o (jamo) ambts tatswotsnat ambts ikwotsniya b̄odets? ear aatr shengsh daniyiwe. Manatsnowere daniruwots mas'afatse beyiru terwerotsnat aap'i problemiyotsn ma'a'fiino

nat k'aat'fiinonsh kaide'e imr bofiinituwok'o woshuwe. Daniruwotsitse fiintsotsi ikikon (niyiron) tizr ak' marats bofiinituwok'o woshrni bofiinoshha (bo'aniyosha) arianiyo imrni shenpsh bo daftarats k'o'o bode k'e tuwo k'o woshuwe.

### **1.3.2. Gush Geyef Giit fideli detsts s'een Taawotsatse Ik fideli**

#### **detsts s'een Taawo tsi k'awa**

(6 k'aat'I wora)

Hanokna giit fideli detsts ikima'a' s'een taawoni bi'atse k'a wiru s'een taawoniye bémukituwotsna giit fideli detsts s'een taawoni k'a'osh béshengetu weerona tats wotsnat ikwotsn k'op'o bofaluwok'o woshde'e daniyo geyituwe.

**Ariya:-** A/ 38-9 = \_\_\_\_\_ hanatsna 38 = 30+12

erk'oorni keewi manatse aanarni

20+18-9 er shengsh daniwe.

Bi/ 42-5 Eshna 42= 30+12 er k'oo. maniye

okona 30+12-5 er daniwe.

Danbit'iintsets ariyanotsk'owon s'een taawots tatswo tsnat ikwetsn k'op'efoko bodandek'o k'onat terwerotsi bofiinok'o daneyiye okona ariyotsna ak'marats k'o'orni bofiini tuwoko wosho geyituwe.

**Ariya:-** A/ 32-8 = \_\_\_\_\_

32tse 8to k'a'osha shini 32 to tats wotsnot ikwotsna er owuk'o k'op'etuwo wok'o aati erni 32= 20+12 erambts tatswotsnat ambtsik wots

béwoto bokewituwok'o woshi. Aanni tatse giit ikwotsatse shumt ikwotsi k'aúwere ombts bérorituwok'o bokeewish aatuwe. Haniye okona 32-8 = 24 bwotituwok'o daniwe.

Danbi k'o p'etsano tsna ak'marats k'o'or kitsuwe.

$$\begin{array}{ll} 32-8 = 20+12-8 & \text{Shini } 12\text{tse- } 8\text{to} = 4 \\ = 20+4 & \text{Manatseanarni } 20+4 = 24 \end{array}$$

Eshna bok'oshetsoni 24 er keewuwe.

Hank'on k'osh k'osh ariyotsi ndaniyiye okona daniru wotsmas'afatse beyiru terwerotsi daniruwots bofiini tuwok'o daniyo (keewo) geyituwe.

### Ariya :-

A/ 23	* 3tse 7to k'ao falerawotsna tatsi moow atse
<u>- 7</u>	beyiru 2 tatswotsatsna 1 k tatso nodek'et
<u>16</u>	(nogushit) erni 3tonnodabit, $10+3 = 13$
	* 13tse 7 to kawarni datsets ton a ikima'a'
	shirotsno k'o p'et. ( $13-7 = 6$ )
	* Tatsi maa wotts' 2 tse iko gush
	<u>nodek'tso tsna</u> iku bérortso k'o gawuwe. Erni
	orts ik manna bok'o sheyi tatsi maashiruts
	mowuwats k'owe.

Haniye okona  $23-7=16$  Etiruwna ak'marats k'oorni daniruwots shengsh danbode k'etuwo k'o wosho nec geyituwe. hanora (bofiinora) ariyo (arwosho) haniye dashts ank'o k'o'ode'e kiitso geyituwe.

$$\begin{array}{l} 23-7 = 16 \text{ hanbwottsoni } 16+7 = 10+6+7 \\ = 10+13 \\ = \underline{\underline{23}} \end{array}$$

Erni k'osh k'osh ariyotsno nfiiniye okona bomas'afatse tookan shirotsi beyiru terwerotsi ma'a'fiinonat k'aat' fiinona er kaide'e imr bofiinitu wok'o woshi maniye okona aap'iproblemiyotsi bofiinituwok'o woshrn bofiints

fiinoshha (aniyosha) ari aniylo imrni shengsh bodaftarats k'o'o bode  
k'etuwok'o k'ali

## Ci/ TATSONAT K'OORONA

Daniruwots danhan shengsh bodano s'iilo geyituwe.

- Detsfe et de'e waf giit fideliyets s'een taawotsatseik fideliyety s'een taawotsi bodabituwok'o aati.

Ariya:- A/  $85+9 = \underline{\hspace{2cm}}$  Bi/  $85+9 = \underline{\hspace{2cm}}$

- Gush geyef (de'e waf) giit fideliyets s'een taawotsats ik fideliyets s'een taawotsi bok'auwituwok'o aato k'anide'e aati.

Ariya:- A/  $23-8 = \underline{\hspace{2cm}}$  Bi/  $96-7 = \underline{\hspace{2cm}}$

- Danbi tiintsets weeront'iinets aatotsna ma'a'fiino nat k'aat'i fiinonaer kaide'e imrni fiin bofa lonat bomawon s'iilo geyituwe.
- ket dabonat k'a'wi aap'i problemiyotsi aati

### 1.4. Detsfe Etonat Fushan Gerawu (De'ewaraw) Giit fideliyets s'een Taawotsats ik fideli detsts s'een jaawotsi dabonat ka'ona

#### (10 perediya)

Danhan k'os'wetsi Daniruwotsi han dan bek'riye okona

- Detsfe et de'e waraw giit fideli yets s'een taawotsi dabituno.
- Detsfe et geyeraw (de'ewaraw) giit fideli yets s'een taawots dabi aap'i problemiyo fiinituno.
- Gush geyeraw (de'ewaraw) giit fideli yets s'een taawotsi k'awituno.
- Gush geyeraw giit fideli yets s'een taawots ka'wi aap'i problemiyotsi fiinituno.

→ k'awi s'eenmatsi keewotse bok'oshe yosh aaniyo bé beyonat b'alon galituno.

### **Daniyiruwo Fiina**

#### **A/ Shini K'ana**

- Daniyiruwo daniyosh békindftsere shini haniye dashi t'iintsets fiinotsi fiindek'o (k'andek'o) geyituwe.
- Danitookan daniyiftse shini s'een taawotsi tatswotsnat ikwotsn dabon keewa eetiruwona shuutsaanar s'iilo geyituwe.

Hank'ona aatotsi tizrni k'aat'otse bokewetuwo'k'o woshrní bodani mas'afatse beyiruterwer 21,22,23 tsats ghengsh k'ande'e warni fiiniwe (daniruwotsna)

### **Dan Aayi k'ac' K'aniya**

#### **Ariya - flesh kardiya**

- loo bborfetso beyiru s'een taawotsi detsts dabi jaanda
- k'awi jaanda.

Bi/ Danonat daniyi Amatsee dan i'iin i'iina.

Tookhaniye shini giit fideli s'een taawotsats ik fideli yet s'een taawotsi dabonat k'a'ona etiruwo bodantso tsna biatse tuuwrni k'aat'otse bokewetuwo'k'o woshi.

**Ariya** A/ 15+3 = \_\_\_\_\_ Bi/ 34-3 = \_\_\_\_\_

Hanank'o aatotsi bofiinonat bok'azon siilrni s'een taawotsi boma'a'kawunton dabonat k'a'ón gawiyo geyituwe. mana tsnowe giit fideli eyetss'een taawotsi dabonat k'o'ona etiruwotsi t'iitsets ok'on kiitso geyituwe.

#### **1.4.1. Detsfe Eet De'e waraw Giit fideli yet s'een**

### **Taawotsidaba (5 perediva)**

Giit fideli eytss s'een taawotsi dabosha jama (uun) s'een taawotsi bomaak'awuntson bad'iyo weyin k'op'o bge yituwok'o kiitso geyituwe.

$$\begin{array}{r} \text{Ariya:- A/ 35} \\ \underline{+12} \\ \hline 47 \end{array} \quad 35 \Rightarrow \text{tatwotsnat 5 ikwotsna}$$

$$12 = 1 \text{ tatwotsnat 2 ik wotsna}$$

Eshna ikimo'o' ikimo'o'nton dabrni ( $5+2=7$ ) tatsi maa fideliyo tsna tatsi maa fideliyo tsntan daba ( $3+1=4$ ). Hank'ona s'een taawanatsi daboni (jamoni) 47 bwotit er keewi. Hana a k' marats k'o'or haniye dasts ank'o kiitso faletuwe.

$$\begin{array}{r} 35 \\ +12 \\ \hline 47 \end{array}$$

Tatwotsi	Ikwotsi
3	5
1	2
4	7

Hank'owon k'osh k'osh ariyotsi tiitsr shensh bofiinitu wok'o wosheyiye okona bo (daniruwots) masafatse beyiru aatotsi bofiinituwok'o woshuwe.

Erni dabeyiruwotsi bad'iyir k'oorni giit fideliyets s'een taawotsi awuk'o dabo faletuwok'o haniye dashi t'iin tsetsok'on daniyo geyituwe.

$$\begin{array}{r} \text{Ariya :- A/ 34} \\ \underline{+24} \end{array} \quad = 30+4$$

$$20+4$$

Hank'o bad'ide'e bo k'op'iye okona ikimaa wottso ikimaa wotts s'een taawatse (wottsats) tuwur dabogeyituwe.

$$\begin{array}{r} 34 \\ +24 \\ \hline \end{array} \quad \begin{array}{l} = 30 + 4 \\ 20+4 \end{array}$$

Haniyeokona tatsi maa fideliyotsi daba

$$\begin{array}{r} 34 \\ +24 \\ \hline \end{array} \quad \begin{array}{l} = 30 + 4 \\ \underline{20+4} \\ 50 + 8 \end{array}$$

Erni 50+8 = 58 er ikikon bedaniye okon k'awi ntsre bodanetuwo'k'o woshogeyituwe.

**Ariya:-** 35 = 30 +5

+22 20+2

50+7

Jamon danan daniruwo tssh shengsh bgalonat b k'azon danosha bomasafatse beyiru terwerotsi bofiini tuwok'o wosho geyituwe. Haniye okona terwerots na k'aat' fiinonat ma'a'fiinon bofin ituwok'o nk'al iyeokona niyirniyiron tuwur ak' marats bofinituwok'o k'aluwe.

- Ikimoonat tatsi mootse beyiru s'een taawotsi bomoon k'osh dabeyiruwotsnton shengsh bkaw kawats (békawon) bobeyo keewi.
- Ikimeyitsi s'een taawotsi shini dabr boimetwo ikimoots k'op'a
- Manatse anar tatsi meyitsi s'een taawotsi dabnitatsima'a' shirots k'op'a.

Danbit'iintsetsank'owon bodaniye okon giit fideli yets s'een taawotsi dabi ket aap'i problemiyotsi bofinitu wok'o woshogeyituwe. Erni dabi jaando weyinmoflesh kardiyo de'erni shengsh danobodetse tuwok'o woshuwe.

#### **1.4.2. Gush De'ewaraw (geyeraw) giit fideliS'een taawotsi**

##### **k'awa (5 perediya)**

Han daniyiftse shini haniyeshn k'aat' 1.2 tse gush geyeraw giit fideli eyets s'een taawotsatse ik fideli yets s'een taawotsi k'a'uwa etiruwotse tuwur shuuts aanars'iile.

<b>Ariya:-</b> A/ 16	Bi/ 18	Ci/ 28
<u>- 3</u>	<u>- 4</u>	<u>-5</u>
<u>13</u>	<u>14</u>	<u>23</u>

Hanank'o aatotsa daniru wots botokon tuwur ok' marats bofinituwok'o woshi N'imet ariyyotsi ik fideli yets s'een taawotsi ikimoon giit fideli eyets s'een taawoniye bogobígeyiratse.

Shuts anar s'iilon tiints aatotsi daniruwots bofiiniye okona giit fideli yets s'een taawotsi k'a'wi s'een matsu keewotsi ak' marats k'o'orni bok'osho (boagi tstso) damiruwots bofiiniruwok'o woshuwe. Hanora s'een taawotsi bad'ide'e k'oor bokawituwok'o woshi (k'ali)

$$\begin{array}{rccccc}
 \textbf{Ariya}:- & A/ 45 & & = 40+5 & Bi/ 25 & = 20 +5 \\
 & - 24 & & - 20-4 & - 12 & - 10-2 \\
 & \underline{21} & & 20+1 & 13 & 10+3
 \end{array}$$

Danbi t'iintsets arriyanots nari ariyot'iitsrni shini ikotsi bok'awituwok'o kiitsa, uutsatse awudo k'a'weyor ambtso b'orituwok'o aata erni. Habeuutsatse hiyeawudo k'aúweyor bodagitsi bok'oshe wo ambtsbwoto aati. Hannari k'oshk'osh aatotsi aatrni bofinituwok'o kup'yo geyituwe.

Haniyere okona finat bodatstsona ar bwoto wokin gawiyir bofinituwok'o gawit k'ala

$$\begin{array}{rccccc}
 \textbf{Ariya}:- & A/ 45 & & \text{ariya (gawiya) arbwotkitsa} \\
 & - 24 & & & 24+21 = 45 \\
 & 21 & & & \\
 & Bi/ 25 & & \text{arbwot kitsa (ariya)} \\
 & - 12 & & & 12+13 = 25 \\
 & \underline{13} & & &
 \end{array}$$

Hanank'o fiinotsi bodanetuwoek'o woshi. Haniye boget s'een taawotsi boma'a' mo'o'n k'o'or k'a'o bofaluwok'o kiitso geyituwe.

Tatsima'a'	Ikima'a'
4	7
-1	2

$$\begin{array}{r} \text{Ariya:- A/ 47} \\ -12 \\ \hline 35 \end{array}$$

3	5
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$$\begin{array}{r} \text{Bi/ 62} \\ -41 \\ \hline 21 \end{array}$$

Tatsima'a'	Ikima'a'
6	2
-4	1
2	1

S'een taawotsi tatswotsnat ikwotsner ka'ide'e woyinmo taawotsi dabiweron bad'iyir k'a'o bodaniye orona daniruwots botokon shengsh befiinituwek'o woshi.

Ariya:- 36

-12

Etiru k'awitano fiinoshha ikimootse beyiru s'een taawots konotsne? 6tse 2 to k'aweyor (datsetuwo) abtse ? daatsetso ambts moowotse k'oop'e ? tatsimootse beyiru taawots awotsne? 3tse 1 ko k'a weyor ambtse bweti ? datsets amb tsi mootse k'oep'e ? er aatr daniyo geyituwe. Haniye okona Daniruwots bomas'afatse beyiru terwerotsnat aap'i problemiyotsn bofiinituwok'o woshi. Hanora maafinonat k'aat' fiinino er ka'ide'e n'imiy'e okona k'aat'otse bokeewetuwo (boshiyeyetuwo) woshrni bofiinosh ari'aniyo imr shengsh bodaftarats k'o'obode k'e tuwok'o woshi.

Jamona giit fideli yets s'een taawotsi awuk'o k'auwefok'o bodantsotsna anda k'awi s'een atsi keewo haniye dashit'iin tsets werana bokewituwo woshi.

**Ariya:-** A/ 75

Bi/ 79-82 = \_\_\_\_\_

- 12

63

Ci/ 15

Di/ 60 -70 = \_\_\_\_\_

-10

5

Eshxna “Bi”nat “Di” tse keewets k’awi s’een matsu keewotsi falbok’aa we rawok’o daniruwotssh keewuwe.

Hanbwottsoni 79-82 =\_\_\_\_\_ etiruwanitsna. b’atse k’aweyiruwoni k’awirwatse (k’awiruwoniye) bémuk’utsoshe er kiits geyituwe.

### **Ci/ TAATSONAT K’OORONA**

Danhan daniruwots shengsh danbode k’ok’o s’iilo geyituwe.

#### **Ariya:-**

- Detsfe etgeyeraw giit fideli ayets s’een taawotsi maafiinonat k’aat’ fiinon bofiinituwok’o woshrni bofiinonat bok’ azon s’iilo geyituwe.

**Ariya:-** A/ 86

Bi/ 37

+12

+22

- Giit fideli detsts s’een taawotsn fiinets dabiaap’i problemiyetsi aata. Hanora aatotsi daniruwots jin (aawújamo) bok’eyori bodek’iruwotsi (bodanka) woto bogeyituwe.

#### **Airya:-**

Ikots (beshts) shaashanitsna 35 ash wotsi Ec,Iy iyetskne ett k’op’ere shaasha nitsnomo 47 wootere Jamon ec ay Bi yon deshets ashwots ambsno?

- Gush geyera giit fideli yets s'een taawotsi maaifiinonat k'aat' fiinon k'aide'er imr bofiino s'iilogeysi tuwe.

**Ariya:-** A/ 76 Bi/ 83  
                   - 42                   - 41  

- k'aú bofali tuwotsnat bofalaw aatotsi tiitsr bogalitiuwok'o woshogeyituwe.

**Ariya:-** A/ 62-21 Bi/ 25-45  
                   Ci/ 15-12 Di/ 94-96

## **1.5. DETSFE ETONAT GUSNON DE'EWAF GIIT FIDELI YETS S'EEN TAAWOTSI DABONAT K'AWONA.**

Dani k'os'wotsi:- Daniruwots danhan boishiye okona:-

- Detsfe et de'ewaaf giit fideli yets s'een taawotsi dabituno.
- Gush geyef giit fideli yets s'een taawotsi k'a'wituno
- Keez taawotsi ikats dabituno.
- Giit b'atse k'auwefotsi detsts s'een taawotsi k'awiuno
- Detsfe et geyef giit fideli yets s'een taawots ket dabi aap'iproblemiyotsi fiinituno.
- Gush geyef giit fideli yets s'een taawots ket k'awi aap'i problemiyo fiinituno.

### **DANIYIRUWO FIINA**

#### **A/ Shini k'ana:-**

Daniyiruwo k'aat'ots békindftsere \_\_shini haniye dashi t'iinets fiinotsi fiindek'o bígeyituwo.

- Shiritsi tookhan daniyiftsere shini k'aat' 1.3tse detsfe etonat gushon geyef (de'ewaf) giit fideliyets s'een taawotsatse ik fideliyets s'een taawotsi dabonat k'awa etiruwo daniruwots s'een taawotsi dabonat k'awa etiruwo aniruwots haniye shin bodantsotsna andan shuuts anar

s'iilk'o woshde'er aatotsi k'aniyo geyituwe. Erni tookhan shirots  
beyiru terwero jamwotsi shengsh fiinde'e t'iits so geyituwe.

- **Danaayiyik'ac' k'aniya** :-

**Ariya**:-

- Otse tuwr 9ts bborfetso beyiru s'een.  
taawotsi detsts flesh kardiya.
- Dabi jaanda.
- K'wi jaanda.
- Abakesiya.

Bi/ Danonat Daniyi Amatse Dan T'iin T'iina

Daniruwots danhaniyer shin detsfe etonat gushon de'erwaf giit fideli  
yets s'een taawotsats ik fideli yets s'een taawotsi dabonat k'aan bodantso  
tsna. Anda shuuts anar s'iil k'o kalde'e tuwro too khan daniyo geyituwe.

### **1.5.1. DETSFE ET GEYEF GIIT FIDELI S'EENT AAWOTSI**

#### **DABA (perediya 8)**

K'aat'anitse shini bodabo (jamo) 10 niye danb wotituwu ik fideli tstsgii  
taawotsi bodabituwok'o wosha. Erni k'aat' 1.3tse bodantso, giit hoheyets  
s'een taawotsik hoheyets s'een taawats etiruman kindosh shuuts anar s'iilo  
geyituwe.

**Ariya**:- A/ 19

Bi/ 76

+8

+8

Hanatse anarni detsfe etdetsts (geyef) aato imr haniye dashts ank'o k'o'or  
bodabo kiitsi.

**Ariya**:- 28 shini s'een taawotsi bad'ide'e k'o'o

+34

$$28 = 20 + 8$$

$$+34 = \underline{30+4}$$

Ikimoowotsi booali tatsi moono b̄éali bodabituwok'o keewr bodabo ambts bwotonat ambts tatswotsnat ambts ikwotsn bwotok'o aati. Erni daatsets tatsimaa taawo awuk'o k'aletuwok'onat ikimaa taawo awumand de'eame tuwo k'o aatrni detsfe etiruwo kiitsi aay ariyotsinfiniye okona terwerotsibofininituwok'o woshi. Hank'on bofiino ndaniye okona ikats dabeyiruwotsi bodabon (jamon) bobad'irawo dabo bodane tuwok'o wosho geyituwe.

**Ariya** :- A/ 46

- Ikimaa fideli daba  $6+5 = 11$

+15

- Iko ikimooots (maashirots) rots

k'o'or iko detsfe er keewa.

- Tatsimaa fideli wotsi daba  $4+1 = 5$

eshna  $5+1=6$  hantatsimooots k'op'a

- bodabo (jamo) 61 bwotit

- Ikimaa fideli wotsidaba  $5+8 = 13$

+48

'3' iki maashirots k'o'orni iko

93

detsfe

- '8' nat '1' daba  $8+1 = 9$  hana tatsi

maashi rots k'op'a

- bodabo (jamo) 93 bwotit.

Hanank'o aatotsi ak'marats k'oor danbode k'etuwok'o daniyo geyituwe.

Erni daniruwots mas'afatse beyiru terwerotsi bofiinituwok'o wohsrni bofiino ar b̄é wotonat ar wot b̄ék'azon s'iilo geyituwe.

## **GIIT FIDELI YETS KEEZ S'EEN TAAWO**

**TSI IKN (IKATS) DABA.**

Ikl k'aat'otsna bodabo (jamo) 20 niye bowawu keez s'een taawotsi dabo  
danrno

<b>Ariyo:-</b>	A/ 3 + 4 <u>2</u>	Bi/ 6 + 7 <u>5</u>	Ci/ 8 + 1 <u>4</u>
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Hanank'o aatotsi shuuts anar s'iilk'o woshde'e daniyirani terwerotsi bofiinituwok'o woshogeyituwe. Daniruwo ts han danbo dek'ye ok'ona detsfe et geyef (de'ewaf) k'eezdabeyiruwotsi (dabeyiru) s'een taawotsi haniye dash tsn k'owon daniyo geyituwe.

<b>Ariya:-</b>	13 = 10+3 +14 <u>12</u> <u>39</u>	- 10tsi ayonat /10tson ayitso nat ik fideli yets s'een <u>10+2</u> <u>30+9</u>	taawon badide'e k'op'a. - Ikimaa fideli wotsi daba 3+4+2 = 9 eshna '9'na iki maa shirots k'op'a - Tatsimaa hohe wotsi daba 1+1+1 = 3 eshna '3'na tatsimaa shirots k'op'a
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### **S'EENTAAWOTSI 'DETSFE' ET WEERONDABA**

Bi/ 67 +13 <u>12</u> 92
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\* Ikimoowotsi daba  $7+3+2=12$  eshna '2' iki maa shirots  
k'oorni '1' detsfe no'etet

\* Tatsimoowotsi daba  $6+1+1=8$  eshna  $8+1=9$

\* Bodaboni (jamoni) 92 b̄ewotit eta.

Danbi t'iintsets ariyank'ona daniruwotssh daniyo geyituwe. Erni bomasafatse beyiru terwerotsi maafiinonat k'aat'fiinona er k'aide'e imrni bofiini tuwok'o woshrni aap'i problemiyotsno bofiinituwko k'o wosheyiye

okona k'aat'otse bokeweetuok'o (boshiyetuwok'o) woshri bo'aniyosha  
ari anijo imrni shengsh bodaftarats k'o'o bodek'etuok'o woshi.

### **1.5.2. GUSHGEYEF GIIT FIDELI S'EENTAA**

#### **WOTSI K'AWA (9 perediya)**

Giit fideli yets s'een taawotsi bok'a'orra gusho b'beyeti (b'geyti) bi'atse  
k'awayiru taawo ikimoo k'awayiru taawiki moo niyer bmuk'ora. Eshna 20  
niye dashi giit hohedets ts s'een taawotsi ikimooniye bogats ikhohe detsts  
s'een taawotsi k'a'uwo bedantsotsna shuuts aanar s'iilr kindo geyituwe.

<b><u>Ariya</u></b> :- A/ 16	<b>Bi</b> / 18	<b>Ci</b> / 16
<u>-8</u>	<u>-9</u>	<u>-7</u>

Handanbatsa k'aat' 1.3 tse bodants giit fideli yets s'een taawotseik fideli  
eyets s'eentaaw k'awa etiruwo shuuts aanar s'iila erni bomas'afatse beyiru  
terwerotsi maafinonat k'aat' fiinona er k'aide'e bofiinituwoko wosh  
geyituwe.

Hanatse anarni gush geyt k'awi aatotsi imtni haniye dashi  
t'iitsetsetsank'o woshde'e daniruwots bofiinitu wok'o woshi )daniyi).

<b><u>Ariya</u></b> :- A/ 64	<b>shini</b> s'een taawo badide'e k'o'o (k'op'a)	
<u>-18</u>		
64	= 60+4	= 50+14 - shini 14-8=6
<u>-18</u>	<u>-10-8</u>	- 10 -8 - Erni 50-10= 40
		40+6 - Bok'osh bok'osheyoni
		oshoni 46

Awd ikwotsatse fal shmt ikwotsi k'aawerawotsna shirt tatswotsatsna ik tatso  
gushde'eni ikimoona tatse awuda nowoshit erni tatse awudatsna 8 to  
nok'a'ora 6to borit. 6tona datsetso (koshi) ikimoowots nok'o p'et. Erni 64  
etiru s'een taawatsna ambts tatswots boortso k'o aatrni orts uuts  
tatswotsatsna ik tatso k'awer na awd tatswots bo'orituwok'o keawni audona

tatsimoo wets ke'orni jamon datsetso (bodagitsi ortso) ambts bwoto k'o aato geyituwe. Hank'ana gusha etiruwo eeg bwoto k'o dani yirni bomas'afatse beyiru terwerotsi maa fiinonat ka'at' fiinona er kaide'e bofiinituwok'o wosho geyituwe.

Hanatse anarni danbit'iintse ts woron ndaniye okona "gusha" etiruwona haniye dashi kiitse tsan k'owon keeweyo geyituwe.

<b>Ariya:-</b>	73	- Shinni ikimaa fideliyo k'awa 3 tse 8 to
	<u>-28</u>	k'ao falerawotsna tatsimaatsna ik ta
	45	tso gush nodek'et erni ikwotsi 13 wo tbowutsit. Hanatsna 13-8 =5
		- Giitlona tatsi maa hoheyotsi k'auwet ha nora 7to ik tatso bégushitsotsna 6ta béwotit erni 6-2= 4

Hanank'o aatots nat bomas'afatse beyiru terweri aatotsn ma'a'fiinonat k'aat'fiinona er kaide'e imrni bofinosh kaatso (arianiya) ime.

### **1.5.3. GIIT FIDELI YETS S'EENTAAWATSE GIIT**

### **FIDELI YETSGIIT S'EENTAAWOTSI K'AWA.**

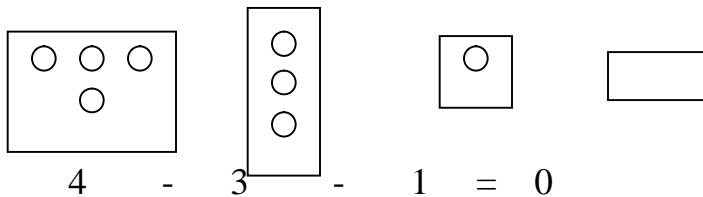
Ikl k'aat'otsna 20 niye bowaw s'een taawotsi ik s'een taawatse k'osh giit s'een taawotsi k'a'o danrno k'au naro bogawisha shuuts anor s'iilk'o woshd'e'erni ak' marats aatotsi k'o'orni botanituwok'o woshi.

**Ariya:-** A/ 4-3-1 = \_\_\_\_\_ Bi/ 9-6-2 = \_\_\_\_\_

Hank'o aatanotsi haniye dashtsank'on bokewituuok'o (bofiinituwok'o) woshi.

**Ariya:-** 4-3-1 = \_\_\_\_\_ Etiruwona shutso de'er.

daniya shinni awd shutsatse keez shutso k'auweryor ambtso borituwk'o aata. Erni orts shuttwo tsatse ik (1) shutso k'auweyer ambtse oori eraata. Haniye okona daatsetso bok'osheyo ak'marats k'o'or kiits.



Hank'o weron keewrni taawu'ikatse taw giitotsi k'aweyora b̄eatse k'aweyiruwatse giitotsi (k'aweyir uwotsi) niyir niyiron k'a'wa. Erni bo danimas'afatse beyiruterwerotsi k'aat'otse bofiinituwok'o wosha giit fideli yet s'een taawotsi k'awefok'o haniye dashi kiitsetsank'on daniyi.

**Ariya:-** 45-28-12 = \_\_\_\_\_ k'aat'otse beyiru daniru wets buwur boned'ituwok'o keewrni ambts bowoto taawde'e ak'marats k'o'o. Daniruwots taawo 45 bwotiyala hanitsna 28 daniruwotssh bewere ir keewi erniani eed'iruwotsitse 12 bbeyetuwok'o keewi. Hanor ak'maratso 45-28-12 er k'oorni s'een taawu'ikatse giit s'een taawotsi k'alosha shiniiko k'awarni oratsna (datsetsatsna) anigiitl taawo k'aubwoto ak'marats k'oor kiitsa.

$$45-28=17$$

$$17-12=5$$

K'osh naari tanoni s'een taawotsi bomaa k'awntson k'awa.

**Ariya:-** 84-22-41 = \_\_\_\_\_

- Ikimaa s'een taawotsi k'awa  
 $4-2-1=1$
- tatsi maa s'een taawotsi k'awa  
 $8-2-4=2$ , datsetsoni 21

Danbi t'iintsets hank'on shengsh ndaniyiye okona bomas'afatse beyiru terwerotsi maa fiinonat k'aat' fiinona er imrni bofiininar s'iilo geyituwe.

## C/ TATSONAT K'OORONA

Daniruwots danhan k'os'o dets bodek'o danosha s'iilogeeyituwe.

### Ariya:-

- Giit fideli yets s'een taawiaatotsi bodabitu wok'o a'ata.
- Giit fideli yets s'een taawiaatotsi bok'awi tuwok'o aata.
- Jamona detsfe etonat gushon geye f s'een taawots aato imrni moonat k'aat'otse bofiinituwok'o woshr s'iilogeeyituwe.
- Aap'i problemiyotsna dabonat k'awitani narotsi imr (keewor) bofiinituwok'owosha.

## 1.6. EED' TATSA (INDA) K'AC'W (2 perediyo)

Danhank'oswotsii daniruwots danhan bo'ishiye okana:-

- yootsi eed' tatsefode'er bogonoki keewots eed'o tatsituno.
- indan-zizron ----eed'o tatsituno

## DANIYIRU FIINA

## A/ SHINI K'ANA

Daniyiruwo daniyosh k'aat'ots kindftsere shini haniye dashi keewanotsi k'andek'o bigeyituwe.

- Tookhan shirotsce beyiru tatsi k'ac' wotsnat k'osh k'osh yootsi eed' tatsik'ac'wots eeg bowo tok'o shengsh k'ande k'o geyituwe.

## DANAAYIYI K'AC' KANIYA

- Indonat kishi terentan taalit bri joka.
- kishit'era
- kishi inda

## **Bi/ DANONAT DANIYI AMAISE DANO T'IINT' IINA**

Tookan daniyosha daniruwots bogalotse beyiru keewotsna noganoke daatset yootsi geenzindi k'ac'wotsn boindituwok'o woshi (k'aci)

**Ariya:-** A/ jako, shbo kishi indo kishi jabo de'e r k'aat' otse beyiru i'arap'e sona maskotiyona. fingeshona k'aati eed'ona bgawnona boidituwok wosha.

Bi/ Taawdani masafø jametsots zizron indon bo'indituwok'o k'ala ernidaniruwots bomas'afø ambts ind bwoto bokewitu wok'o wosha. Bo'aniyo bk'oshiyala jametsi kishiindo btalerawok'o keewo geyituwe. erni ari eed' indi k'ac'o durdets bwotok'kewi.

**Ariya :-** metra

## **TATSONAT K'OORONA**

Daniruwots tookhoanitsi dano egetosh bgeyiruwok'o danbodek'o danosha haniyedashtsank'on aata.

**Ariya:-**

- Jam daniruwots eed'o ambts ind bwotoaati (botohi indon) indeyor.
- Ik irsasi eed'o zzron ambtse? eraata
- Bi'ats beyeyiru womberi eed'o ambtsind bwoto indar bokewish wosha.
- Yootsi (shini) eed' tatsi k'ac' wotsi bokewish woshi.

**Ariya:-** \* kishi inda, joka - - -

## **1.7. GUUP (JAM) JERWERA (4 perediya)**

### **K'os' Jama:-**

Daniruwots k'ot'k iko danbok'riye okona :-

- 1olo boborfetso beyiru s'een taawotsi dabo dande k'etuno.
- 1olo boborfetso beyiru s'een taawotsi k'a'o dandek'etuno.
- íolo boborfetso beyiru s'een taawi ket dabi aap'i problemiyotsi fiinituno.
- 1olo boborfetso beyiru s'een taawots ket k'awi aap'iproblemiyotsi fiinituno.

### **DANIYIRUWO FIINA**

Haniye shin daniru wets k'otokhan bodantsotsna jaman k'at'anitse egetosh (beshiyosh) geyeru shap kewotsi k'aat'otse tizr bokee wetuwok'o wosheyiye okana bodanimas'afate beyiru terwerotsi bofinituwok'o woshrni bofinosha (aniyosha) ari aniyosha imrni bodafta rats k'o'o bode k'e tuwok'o wosha.

### **TATSONAT K'OORONA**

- moonat k'aat' fiino imr bofiino s'iila.
- bofiino arb wotok'o bokewish aata.
- daniruwotsitse k'atswots tuwr ak' marats aatotsi bofinituwok'o wosha. erni bofiinoshaari aniyosha ima.

### **K'OT'Ok GIITA**

## **2. BALO (100) BOBORFETSO BEYIRU S'EEN TAAWOTSI**

### **AYIYONAT KA'I YONA (60- perediya)**

Danhan k'os'wotsi :- daniruwets danhan danbok'riyeokna

- loolo (Balo) bborfetso beyiru s'een taawotsi ik fideli yets s'een taawotsn ayiyituno.
- loolo (balo) bborfet sobeyiru s'eentaawotsiik fideli yets taawotsn ka'ituno (kayituno)
- loolo bborfetso beyiru s'een taawotsiayi yonat ka'iyi jageyo keewituno
- loolo boborfetso beyiru s'een taawotsia ayiy ket aap'iproblemiyo fiinituno.
- loolo bobor fets beyiru s'een taawotsi ka'iyi ketap'i problemiyotsi fiinituno.
- Aatotsiniyirniyiron eegosh bowettsok'okeewfets fiinituno
- wonawoneyiruwotsi fiinituno de'er aatotsi fiin dano danetuno.

## **DANAAYIY K'AC'A**

- karewotsi
- ayiyi jandwotsi
- kayiyi jandwotsi
- flesh kardiya
- abake siya

## **DANTYIRUWO FIINA**

Daniruwots haniye shin 20 bborfetso beyiru s'een taawotsi ayiyonat kayiyon ikl-k'aat'otse bodantso tsna shuuts anars'iilk iwishi. Hanatse anar ni doo bborfetso beyiru s'een taawotsi ik fideli yets s'een taawon kayiyonat ayiy malawotsi danayiyi k'ac'o de'er bodane tuwok'o woshi. wanatsna terwerotsibofinish kup'iyi. Hanor aap'iproblemi motts aatotsna awk'o k'alde'e bobitsetuwok'o (bofiinituwok'o) tewreriya.

### **2.1. 1oo BOBORFETSO BEYIRU S'EEN TAAWOTSI '2' nat**

#### **10n AYIYONAT KAYIYONA (8 kaat'wora)**

k'os'wotsi:- daniruwotsi danhan bo'ishiye okona:-

- 20 bborfetso beyiru s'een taawotsi "2"n ayiytuno.
- Taawi ayiyi milkituwotsi (cirotsi) danetuno /dek'etuno.
- Ayiruwotsnat ayiyi k'awuntso eeg bwoto keewituno.
- 20 bborfetso beyiru s'een taawotsi "2"n kayiyétuno.
- Taawi k'ayiyi kirotsh fiinituno.
- Kayiruwona kayiyiruwona bbanona (bodetuwna) etiru wots eg bowotok'o kewituno.
- Ayiyonat ko'ayiyi jageyo keewituno.
- Kayiyit bodatstsona (bbanona) ariyituno.

## DANIYIRUWO FIINA

### A/ SHINI K'ANA

Daniyiruwo k'aat'ots kind ftsere fiini haniye dashikewanotsi t'iiwintsdek'o bígeyituwe.

Tookan daniyiftsere shini 20 bborfetso beyiru s'een taawotsi "2" nat "10" ayiyonat kayiyon bodantsona shuuts aror s'ilk'obo mas'afatsebryiru taawotsats shengsh k'ande'e t'iinogeyitu we.

### DANAYIY K'AC'WOTSI K'ANIYA

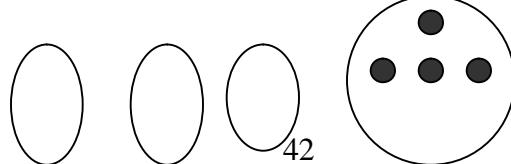
Ariya:-

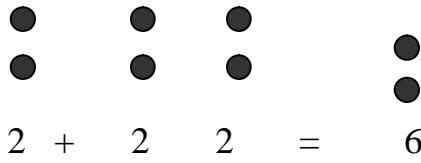
- karewosh ka'ik'rets (k'aat'ets) rectangle kordiyotsi
- ayiyi jaandwotsi
- k'ayiyi jaandwotsi

### Bi/ DANONAT DANIYI AMATSE DANT'IINTIINA

Daniruwots haniye shin 20 bborfetso beyitu s'een taawotsi '2' nat "10" oyiyonat kayiyon bodantso tsna shuuts anar s'iiloshi shenger s'een taawotsi daba etiruwotse tuwr bodane tuwok'o tewr wona geyituwa.

Ariya:-





Danbi t'iintsets ariyank'o ntuwurni shirt shutswotsi keezoko gerni  
dabi tanwotsi de'er  $2+2+2=6$  etiruwo ambts giitotsi bdetsotsok'o daniruwotsi  
aatuwe. Erni keezotigit bwoto ak'morats k'oor (gudr) daniruwotssh kiits  
geyituwe. Hanora ayiy k'op'oni (guut'oni)  $3 \times 2$  bwotok'o kiitsr aatotsi  
niyirniron de'er bodanetuwoek'o wosho geyituwe. Erni bodanimas'afatse  
beyiru terweri aatikona k'aat'otse bofiinituwok'o weshrni bofiinosh  
ari  
aniyo im. Haneg etosh bgeyiruwok'o bodaniye okona k'osh tooko daniyo  
faletuwe. Hanora ayiyonat kayiyi s'ageyo ak'marats k'oor (guu'r) haniye  
dashtsank'o keewo geyituwe.

**Ariya:-** A/  $7+7+7=21$  Bi/  $4+4+8$

$$3 \times 7 = 21 \quad 2 \times 4 = 8$$

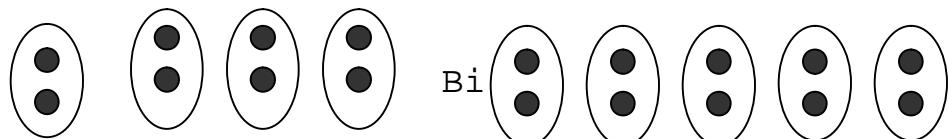
Hank'o er daniyeyiye okona terwergiito bofiinitu wok'o wosha.

### 2.1.1. S'EEN TAAWOTSI '2' nat '10'n AYIYA

#### A/ SEEN TAAWOTSI '2' AYIYA

Seentaawotsi '2'n ayiya etiruwo haniye shin bodantso tsna and ani shuuts  
anar s'iiogeyituwe. Hanora gibi tanwotsi de'erni kiits geyituwe.

**Ariya:-** A/



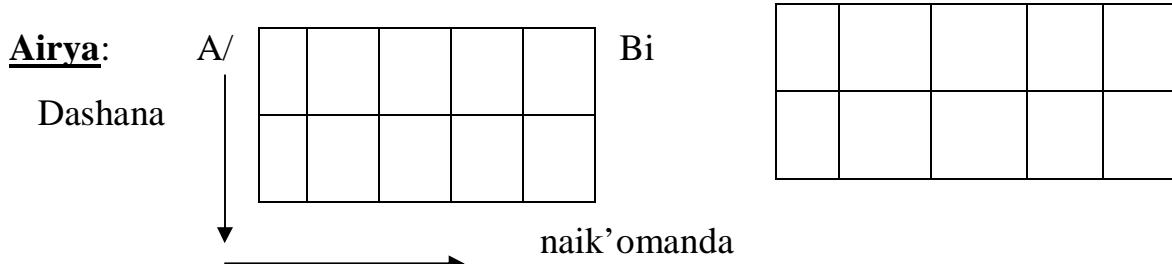
Awdoti gitaa

$$4 \times 2 = 2+2+2+2$$

uutsote

$$2+2+2+2+2=5 \times 2$$

Hanank'o aatotsi de'er ak'maratsniyir niyiron kiitsi etni k'aniyets danaayiyi  
k'aca' wotsi /karewosh/ karewok'o kayiyets rectanglikardiyotsi ayiyi  
jaandwotsi de'erni haniye dashtsank'on kiitsi.



Rectanpliyanitse ambts karewots bobeyek'o danosha haniye shini nodantsok'ona jamtaawo dano faletuwe. Eshna daniru wots ambts karewots bobeyiruwok'o ak'marats k'o'or aatrni bé k'awuntso dashanonat nal k'omandan beyiru karewotsiayo ayiyir danofaletuwok'o kiitso geyituwe.

A/ Girmano = 5 karenos Bi/ girnano = 6 karenos

dashan = 2 karenos

dashan = 2 karenos

eshna 2 toti 5 = 10

eshna 2 toti 6 = 12

$$2 \times 5 = 10$$

$$2 \times 6 = 12$$

Erni aniani daniyir bodanetuwo wosho geyituwe anni '2' ayiyi jando ak' marats k'o'orni (gud'rni) shegsh danbodek'etuwok'o kiitso geyituwe.

**Ariya:-**

x	0	2	3	4
2	0	4	6	8

Danbi t'iintsets ariyank'ona daniruwo ts aniani bodane tuwok'o woshrn "Ayiruwotsn" etiruwo egbwo tok'o t'iwints bodeke etuwok'o wosha.

**Ariya:-** A/  $2 \times 3 = 6$  eshna 2 nat 3 na 6 t imosh ayiruwotsi 6 nmo ‘2’ nat ‘3’zi aya er kiitsa. Hanora taawotsna fiide liyonat taawon bok’op’etuwok’o (bogut’etuwok’o) wosho geyituwe.

$2 \times 3 = 6$  Wokin gitoti keezo shirta bwotit

$3 \times 2 = 6$  Wokin keezoti gito shirta bwotit

Ernidanbodek’etuwok’o wosha. Anni bomas’afatsi terwer keezi aatotsi moonat k’aat’i fiinona erni nimiye okona k’aat’otse keeweyarni (shiyeyarni) bofiinsha arianiyoimrni shegsh bodoftarats k’o’obodek’e tuwok’o s’ilogeyituwe.

### **Bi/ S’EENTAAWOTSI ‘10’n AYIYA**

Ilik jindon tats tats daniruwotsi keez jindon 30 daniruwots boedituwok’o woshr ambts nana’o (daniruwots) boed’iruwok’o aatr ndaniyiye okona daniruwots 30 er bo’aniyora haniye dash tsank’on ak’ marats k’o’e (guud’e)

$3 \times 10 = 30$

Haniye anarni hannaron (hank’on) awud jindon,uutsjindona er k’aat’otse bokeeweyiye okona s’een taawotsi ‘10’n ayiya etoni s’een taawotsats ik zero dabaet b̄ewoto keewogeyituwe.

$4 \times 10 = 40$

$5 \times 10 = 50$

Danbi keewetsank’ona shiyeyarni “Ayiruwots”nat ‘Ayona’ eto et b̄ewotok’o daniru wots bokeewituwok’o wosho geyituwe.

**Ariya:-**  $2 \times 10 = 20$  \* 20ni 2nat 10 tsiaya

\* 2 nat 10na 20 ayiyiruwotsi

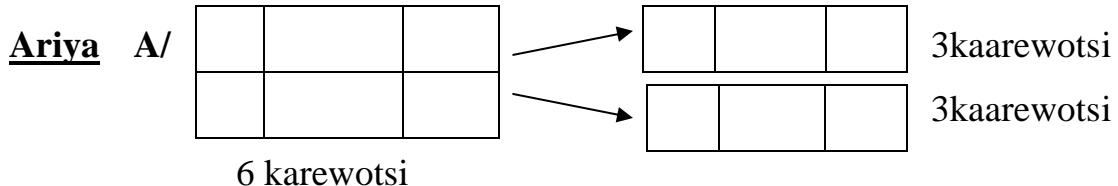
Er bitsbits keeweyiye okona daniruwots mas'afatse beyiruterwer 4 maa fiinonat k'aat'i fiinona er kaide'e bofiinituwok'o woshrni bofiininarona k'aat'otse s'iilo geyituwe.

### **2.1.2. S'EEN TAAWOTSI '2' nat 10 tson KAYIYA**

#### **A/ S'EEN TAAWOTSI '2' sh KAIYA**

S'een taawotsi o'2'sh ka'iya etiruwo haniyesh bodan tso tsna daniruwotsitse 10ts nana'o tizrni giitoko taalo kayar boed'ituwok'o woshrni ambts ambtsn giitosh boka'itsok'o aati. Hanatse anarni taawi s'een matsi keewona ak'maraats guud'rni boaniytuwok'o wosho geyituwe.

**Ariya:-**  $10\approx 2 = 5$  hanora “≈” han kaiyi mkit bēwotok'o daniyosha daniruwotssh goo imr aato geyituwe kindk'o danbtsi weran it keeweyiye okona dan ayiyi k'ac' wotsi (karedets ts rektangli kardiyotsi kaiyi jaand wotsi) de'er haniye dashtsank'o kiitsi.



6 kaarewotsi gitoko taaide'e kayiya. Gitoke ambts kaarewots bobeyiruwok'o daniruwotsi aati. Maniye okona danbi kiots sets armank'ona ak' marats gud'rni /k'oorni/ kiitso geyituwe. Hanuwe  $6\approx 2 = 3$  etiru taawi s'eenmatsi keewo bwotok'o beewuwe. Erni “≈” n kayiyi mikit bwotok'o daniruwotsi aatr danbo dek'etu wok'o woshi.

Hannarona k'osh aatotsi niyirniyiron de'er boterweriye okona arbvet keewiruwo egbwotok'o bodanetu wok'o wosha.

**Ariya:-**  $12 \curvearrowright 2 = 6$  hanbwottsoni  $2 \times 6 = 12$  bwottosha

Hanank'o aatotsi kayiyir bodaniye okona bodatsts (aniyosha) arbewoto danosha ayiyode'erdano falituno. Hanton deshide'e rni ka'iyi s'een matsu keewotsna ka'iru wona, ka'iyiruwona. bbanona (bodetuwna) etiruwona bodagotse beyiru jageyo ikats keewo geyituwe.

**Ariya:-**  $20 \curvearrowright 2 = 10$  20 ka'iruwoni 2 kaiyiruwoni

10 bix'obana.

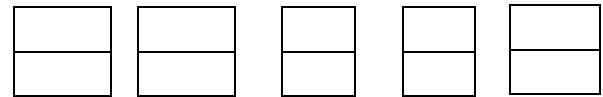
Jamana danbi keewets ariyimano tsk'ona bodenetwok'o wosheyiye okona bomas'afatse beyiru terwer 5 tsatse aatotsi maafinonat k'aat'i fiinona er bofiinitu wok'o wosho geyituwe.

### **Bi/ 10 tsosh kayiya**

S'een taawotsi 10 tsosh kayiya etiruwo daniyosha kaare wotside'er kiitsi geyituwe.

**Ariya-**


20



$20 \curvearrowright 10 = 2$

Tatson (10) ayits s'een taawotsi tatsosh (10) kayiyewera ambts b bodetuwo wok'o danosha s'een taawotsitsna ik zero t'afik'rar datso faletuwok'o keewa.

**Ariya:-** A/  $30 \curvearrowright 10 = 3$  Bi/  $40 \curvearrowright 10 = 4$

Haniye okona bo danimas'afatse beyiru terwer 6 aatotsi bofiinituwok'o wosho geyituwe.

## **TATSONAT K'OORONA**

Daniruwots danhan danbode k'tsok'o danosha haniye dash tsank'on s'iilogeyituwe.

- 20 bborfetso beyiru s'een taawotsi '2'n boayiyi tuwok'o aata.

Ariya:- A/  $7 \times 2 =$  \_\_\_\_\_ Bi/  $8 \times 2 =$  \_\_\_\_\_

- ‘20’ bborfetso beyiru s’een taawotsi ‘10’n boayirituwok’o wosha.

Ariya:- A/  $10 \times 1 =$  \_\_\_\_\_ Bi/  $10 \times 2 =$  \_\_\_\_\_

- ‘20’ bborfetso beyiru s’een taawotsi ‘10’sh bo’kayiyituwok’o aata.

Ariya:-  $50 \times 10 =$  \_\_\_\_\_

- jamona ’20’ bborfetso beyiru s’een taawotsi ‘2’ nat ‘10’n ayiyonat kayiyon bodanetuwo’o ayiwerindo n s’iila.

Ariya:-

- ma’ a’ fiinon.
- k’aat’ fiinon.
- k’aat’otse aateyiru aatotssh bo’imiru aaniyon

## **S’EEN TAAWOTSI 3n, 4n, 5n, 1nat On AYIYONAT**

### **S’EEN TAAWOTSI 3n, 4n, 5nat 1n KAYIYA (22 perediya)**

**DANHNA K’OTSWOTSI:-** Daniruwots handan bokriye okona:-

- ‘3’n ayiyi aatotsi fiinituno.
- ‘3’n kayiyi aatotsi fiinituno.
- keezkisha etiruwonat keezla etiruwon keewo falituno.
- ‘3’z ayotsi keewituno.
- ayiytano dabitanats bdets ts bad’iyi deyo keewituno.
- 4n ayiyi aatotsi fiinituno.
- 4n kaiyi aatotsi fiinituno.
- awdkishonat awdlona etiruwotsi keewituno.
- awd ayotsi keewituno.
- ‘5’n ayiyi aatotsi fiinituno.
- ‘5’n kaiyi aatotsi fiinituno.
- uuts kishonat uutslona etiruwotsi danetuno.

- qnat 1 ti ayiyi doyotsi keewituno.
- ‘1’ ti kayiyi doyotsi keewituno.

## **DANIYIRUWO FIINA**

### **A/ SHINI K’ANA**

Daniyiruwo k’aat’ots daniyosh békint ftsere shini haniye dashi keewanotsi fiindek’o (k’andek’o) bígeyituwe.

- Tookhan daniyiftsere haniye shin s’een taawotsi ‘2’n ayiya etiruwo bodantsotsna tuwosh bshe ngisha aatotsi k’anide’erni honitse (toakanitse) beyiru keewotsats shengsh k’ande’erni terwerotsi fiinde’e t’iintso geyituwe.

## **DANAAYIY K’AC K’ANIYA**

### **Ariya:-**

- flesh kardiya
- ayiy jaanda
- kayiyi jaanda
- kare wok’o kayik’rets rektan gliya (rektangliya)

### **Bi/ DANONAT DANIYI AMATSE DAN TIIN T’IINA**

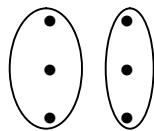
Haniye shin daniruwots ‘20’ boborfetso beyiru s’een taawo tsi ‘2’ nat ‘10’n ayiyonat kayiyon bodan dek’ tsotsn. Hanatse tuwurni ‘100’ boborfetso beyiru s’een taawotsi.

3n, 4n, 5nat On ayiyonat 3n, 4n, 5nat 1kon kayiyo haniye dashi t’iintsetsok’on kiitso faletuwe.

### **S’EEN TAAWOTSI 3n, 4n, 5n, 1n AYIYONAT KA’IYONA**

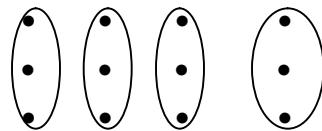
### **A/ 3n AYIYONAT KAYIYONA**

**3n Ayiya**:- Haniye shin s'een taawotsi ‘2n’ ayiya etiruwo giit keewotsi /shutswotsi) ikok matsr dabi tanon ayiyomants kinda etiruwo dek’o geyituwe.



gitoti keeza

$$2 \times 3 = 3+3$$



awudeti keeza

$$4 \times 3 = 3+3+3+3$$

Hanank’o aatotsi de’er niyir niyiron ak’ marats k’o’or kiitsa. Erni kare wosh kayik’rek rektangliyotsi k’anide’erni (ak’marats k’o’orni) haniyedashsts ank’on kiitso geyituwe.

Ariya: A/


$$5+5+5+ = 3 \times 5$$

$$= 15 \text{ kaarewotsi}$$

Bi/


$$6+6+6 = 3 \times 6$$

$$= 18 \text{ kaarewotsi}$$

Daniruwotsi kaarewets ambts bowotok’o aatr botaawo dabonat ayiyi tan wotsi de’er bokeewi tuwo k’o wosho geyituwe.

**Ariya:-** A/ shirotse 15 kareuwots faane er bo’aan yish k’upiyi erni  $5+5+5 = 3 \times 5$  han ambtsoti uuts bwotok’o nat ‘Bi’ shiretse ambts kaare wets bobeyok’o dabonat ayiyita nwotsi de’er boke ewituwok’o wesho geyituwe.

Hanatse anarni k’osh aatotsi ‘3’ mec’ron ayiyirni niyirniyiron de’er “ambtsote” etirowo daniruwots taawonat fideliyon bok’o p’etuwok’o wosha.

Erni terwer 7tse beyiru aatotsi mo’o’nat k’aat’ fiinona er ka’ide’e imrnibofifiinituwok’o wosha. Hanora k’aat’otse daniruwots botokon ak’ marats keyer bofiinitu wok’o wosha. Dambi keewe tsangsh danbode

k'etuwo'k'o woshasha keez ayotsi (keezon) ayitsotsi danbodek'etuwo'k'o wosho geyituwe.

**Ariya 1**  $3 \times 2 = 6$  Eshna keezon ayits 6 eteyala

$3 \times 2 = 6$  bwottosha er kiitsi

**Ariya 2**  $3, 3+3, 3+3+3, 3+3+3+3$  -----

$3, 6, 9, 12, 15$  -----

Hank'on bodaniye okona noononat (aap'onat) k'op'on bodare tuwo k'o woshrni terwer 8 tsi aatotsi bofiinituwok'o wosha, Hanno s'een taawotsi '3'n ayiyo bofaliye akona aap'i problemiyotsi awk'o bofiinituwok'onat awk'o botanituwok'on kiitso geyiyituwe. Han wor bomas'afatse beyiruter wer '9' bofiinituwok'o woshr shengsh bodaftarats k'oobode k'etuwo'k'o wosho geyituwe. ayiyitano dab tanats bad'iyi deyo haniye dashtsank'on ak'marats kiitsa.

**Ariya :-**  $3 \times 4 = 12$

$$\begin{array}{c|c|c|c} \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \end{array} = \begin{array}{c|c|c|c} \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \end{array} + \begin{array}{c|c|c|c} \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \end{array}$$

Eeshna  $3 \times 4 = 3 \times 2 + 3 \times 2$

$$= 3 \times (2+2) \text{ Eegshe } 2+2 = 4$$

Bi/  $3 \times 2 = 6$

$$\begin{array}{c|c|c|c} \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \end{array} \quad \begin{array}{c|c|c|c} \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \end{array} \quad \begin{array}{c|c|c|c} \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \\ \hline \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} & \boxed{\phantom{0}} \end{array}$$

$$3 \times 2 = 3 \times 1 + 3 \times 1$$

Eeshna  $3 \times 2 = 3 \times 1 + 3 \times 1$

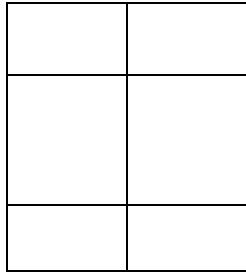
$$= 3 \times (1+1) \text{ egoshe } 1+1 = 2$$

Hanank'o aatotsi kaarewotsi de'e r kiitsa. Erniterwer 10tse beyiru aatotsna ma'a' fiinonat k'oat' fiinona er bofiinituwoko woshi .Hanora kep'o eg bwotok'o shen gsh keewo geyituwe.

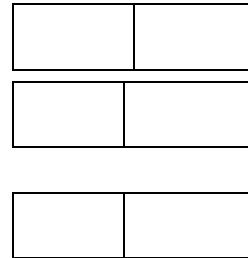
### "3"n KAYIYA

S'een taawotsi '2'n kayiya etiruwotse tuwrni keewe rarni s'een taawotsi "3"n kayiya etiruwona kaarewoshe ka'ik' rets rektangliyo ak'marats k'o'o rni haniye dashi t'iin sank'on daniyo geyituwe.

**Ariya:-**



6 kareya



$6 \curvearrowright 3 = 2$

Rektangliyotse beyiru kaare wots ayo danosha haniye shini keewetso k'ona  $3 \times 2 = 6$  kaarewots bobeyok'o keewrni (aatrni) taalo keezoko noka'iyal bojamets ambts kaare bodetse tuwok'o aata.

$6 \curvearrowright 3 = 2$  kaarewotsi nodatsituwok'o kiitsrni k'osh k'osh rektanpliwotsi kaarewosh keezosh talo kaiyirni 3'n keyiyo tewrerituno.

Hanatsna '3'sh kayiyonat '3'n ayiyi tanwots jagewotsi ariyon kiitsa

**Ariya:-**  $6 \curvearrowright 3 = \square$  etiru s'een matsikeew bbano datsosha 3 nton ayarni '15' imet taawogeya Taawu mani 5. Hanko weron k'osh ariyotsi de'er botarweriye okona bbano ar bwoto ayiy tanon ariyo fale tuwe.

**Ariya:-**  $9 \curvearrowright 3 = 3$  egoshe  $3 \times 3 = 9$

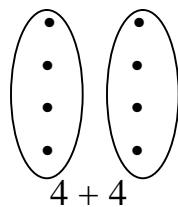
Hank'ona k'osh k'osh aatotsnat terwer 11 tse beyiru aatotsi moonat k'aat' fiinonaer kaide'e imr bofiinituwok'o washogeyituwe. Erni ketket aap'i problemiyots bobitsetuwok'o (bofiinituwok'o) malo kiitsr bofiinituwok'o wosho geyituwe.

## Bi/ S'EEN TAAWOTSI '4'n AYIYONAT KAYIYONA 4n

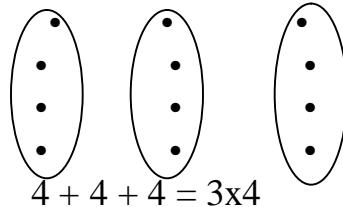
### AYIYA

Tookhaniyere shini bodants s'een taawotsi '3'n aayiya etiruwo awk'o fiinetuwok'o ak' marats k'oor kiitsa.

Ariya:-



Bi/



Danbi t'iintsets ariyan k'ona awd shuts wotsi ikok gerni ambts awdwots faano? etiruwotizrnidaniruwots boterwerituwok'o goo imogeyiyituwe. Erni kaarewok'o keyik'rets rektangliyo ak'marats k'oor haniye dashtsank'o kiitso geyituwe.

Ariya A/


$$4+4+4 = 3 \times 4$$

= 12 kaarewotsi

Bi/


$$4+4+4+4+4+4$$

= 6x4 = 24

Dambi keewets (kitsets) ariyank'ona k'osh k'osh kaarewotsi awdoko kaiyek rektangliyo de'er ambts kaarewots bobeyiruwok'o aatrni daniruwots k'aa t'otse bokeewetuwo'k'o washrni dabonat ayiyi tanwotsn bokeewituwo'k'o woshi hanora bo'aniyo fideliyonat taawon bwoto k'o s'iilarni terwer 13 tse beyiru aatotsi mo'o'nat k'a'at' fiinon kaide'e imrni ari'aniyo imo geyituwe.

Daniruwotsi s'een taawotsi '4'n ayiy bofalona jaandots botokon niyirniyiron tuwur bos'eentsituwok'o woshi.

Ariya:-

x	0	1	2	3	4	5
4	0	4	8	12	16	20

Danbikeewetsank'on daniruwots danbodek'iye okona s'een taawotsi '4' ayiya etoni iktaawo '4' ton bayor bime tuwo aya (ayika) et bwoto keewo geyituwe.

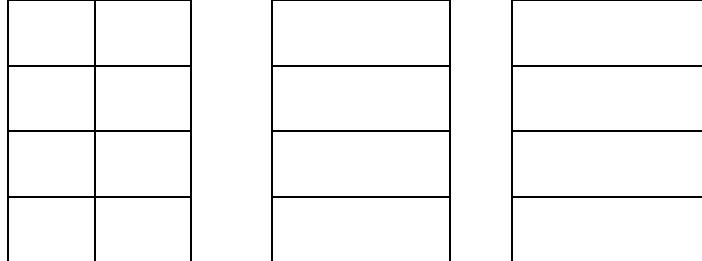
Ariya:- A/  $4 \times 8 = 32$  eshna 32ni 4d aya (ayka)

Bi/  $4 \times 6 = 24$  eshna 2 4 ni 4 don ayika (aya)'

Hanank'o aatotsi tizrni aya (4dan ayitso) etiruwo daniru wots egbəwotok'o keewr '4'n ayitso (ayo) danbi jaan dotes imets ariyon kiitsetso k'o keewi. Haniye okona bonas'afatse beyiru terwer 14 tsi aatotsi befiinituwok'o. woshrni aap'i problemiyotsna awk'o botanituwok'o daniyo geyituwe.

Ayiytano dabitanats bad'iyyidoyo ak' moratskaarewotsi k'oor haniye dashtsank'on kiitsos faletuwe.

Ariya:- A/



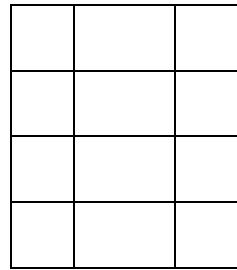
$$2 \times 4 = 1 \times 4 + 1 \times 4$$

$$\text{Eshna } 4 \times 2 = 4 \times 1 + 4 \times 1$$

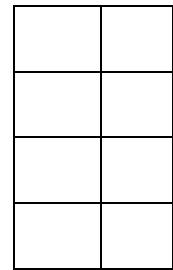
$$= 4(1+1) \quad \text{Eegoshe } 1+1 = 2$$



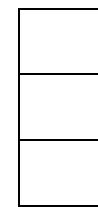
Bi/



$4 \times 3$



$4 \times 2$



$+ 4 \times 1$

$$\text{Eshna } 4 \times 3 = 4 \times 2 + 4 \times 1$$

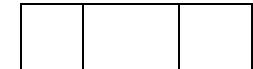
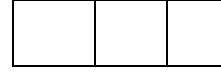
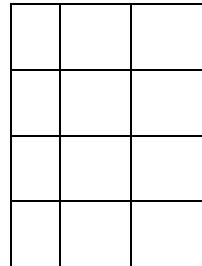
$$= 4(2+1) \text{ Eegoshe } 2+1 = 3$$

Hanan k'oaatatsi daniruwots bofiniye okona bomas'afatse terwer15tse  
beyiru aatotsi maafiinonat k'aat' fiinona er kayide'e imrni k'aat'otse  
bokeewerna bo' aniyosha ari aaniyo imrni shengsh bo dafta rats k'o'o  
(gud') bode k'etu wok'o wesho geyituwe.

Haniye shini bodantso '3'sh kayiya etiruwatse tuwr s'een taawetsi  
'4'sh kayiya etiruwo haniyedashi t'iintsetsank'on kiitsi.

**Ariya:-**

A/



$$12 \approx 4 = 3$$

12

Rektangliyotse beyiru kaare wots 12 bowoto daniruwotsi aatr  
boaniyituwok'o woshi. Etoni  $3 \times 4 = 12$  er bokee wituwok'o woshi. Hank'ona  
12 kaarewotsi taalo awudoko kayiyinok'riyal ambts kaarewots bobeyetuwo  
k'o daniruwots botokan bokeewituwok'o kup'iya. Mana tsna k'osh s'een  
taawotsi '4'sh kayiyosha rektangliyotsna kaarewosh kayiyirni ak'marats

fiinarni boda niyeokona ‘4’n ayiyonat ‘4’sh kayiyi jageyo ariyon te’ude’e bokeewituwok’o kiitso geyituwe.

**Ariya:-** A/  $24 \curvearrowright 4 = 6$ , Eegoshe  $4 \times 6 = 24$

Bi/  $20 \curvearrowright 4 = 5$ , Eegoshe  $4 \times 5 = 20$

Hanank’o aatotsi bofiiniye okona bomas’afatse beyiru tegwer 15 tsi aatotsimaa fiinonat k’aat’otse bokeeweyiye okona arianiyo (doozo) bosh imogeyituwe. Anni aap’i problemiyats dandek’o (bodano) enshdek’o bon bgeyituwosha aap’iproblemiyetsi awuk’o bofiinituwok’o kiitsrni s’iihogeyituwe.

## Ci/ S’EENTAAWOTSI ‘5’n AYIYONAT KAYIYONA 5n

### AYIYA

Etiruwo ag bwoto daniyosha kaarewash kayiyik’rets rektangliyo ak’marats k’oorni haniyedashtsank’on kiitso faletuwe.

--	--	--	--	--

**Ariya:-** A/

$$5 \text{ kaarewotsi} = 1 \times 5 \text{ (Iknoti uutsa)}$$

Bi/


$$2 \times 5 = 5+5 \text{ (giitotiuutsa)}$$

Ci/


$$3 \times 5 = 5+5+5 \text{ (keezotiuutsa)}$$

uuts uuts kaarewotsi niyir niyiron dabrni 1x5 2x5,4x5 --- ko'ordni awuk'o bofiinituwok'o kitsrni hanora fideliyonat taawon keewo bofalituwo k'o woshi

**Ariya:-** A/  $10 \times 5 =$  tatsoti uutsa

Bi/  $20 \times 5 =$  hiyoti uutsa

Hanan k'o keewotsi bodanetuwoek'o woshrni terwer 17 tse beyiru aatotsi maafiinonat k'aat' fiinona er kaide'e imni k'aat'otse daniruwotsniyirniyiron tuwr bofiinitu wok'o woshi.

Haniye okona s'veen taawotsi '5'n ayiya etiruwats daniruwets daro (dandek'o) ensh bode k'isha, ayiyi jaando doozrni bash bashok botseentsituwoek'o woshi.

**Ariya:-**

x	7	8	9	10	12	16
5	35	40				

Manton deshide'e rcni '5'tsi ay (5tson aytsoni) wotts s'veen taawotsi bokeewituwoek'o wosha.

**Ariya:-**  $3 \times 5 = 15$  Eshna 15ni 5tsiaya (5tson ayika)

Uutso ambyson noayiyaliya (noayirneya) tatse uutso nodatsietiru aato daniruwots boaniyituwoek'o wosha han bodaniye okona terwer 18 bofiinituwok'o wosho geyituwe. Hanatsna aap'i problemiyatse auuts kasha etiruwo eg b'ewotok'o daniyo geyituwe. Ayiy bad'iyi doyo dab tanats etiruwo haniye shin daniruwots danbode k'tsotsna hannaron boteru rerituwoek'o wosha.

Ariya :-

$$\begin{array}{|c|c|c|} \hline & & \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline & & \\ \hline \end{array} + \begin{array}{|c|c|} \hline & \\ \hline \end{array}$$

$5 \times 3 = 15$        $=$        $5 \times 2$        $+$        $5 \times 1$

$$\begin{aligned}
 5 \times 3 &= 5 \times 2 + 5 \times 1 \\
 &= 5(2+1) \quad \text{Eegoshe } 2+1 = 3
 \end{aligned}$$

Hank'on aatotsiniyirniyiron de'er daniyeyiye okona terwer 19tse beyiru aatotsi ay badiyi doyo awuk'o bo ayiyituwok'o moonat k'aat' fiinon bofinituwok'o imogeyituwe.

### 5n KAYIYA

Haniye shin s'een taawotsi 4sh kayiyo awk'o bwoto bodantsotsna, hanatse tuwrni taawotsi 5n sh) awk'otano bofaliuwok'o haniye dashi t'iintsetsank'ower kiitso faletuuwe. Hanora kaarewok'o kayi k'rets rek tangliyotsi de'er keewo faletuuwe.

Ariya:-


4 kaarewotsi


4 kaarewotsi


4 kaarewotsi


4 kaarewotsi

20 kaarewotsi

Rektangliyotse beyitu kaarewotsi taawo  $4 \times 5 = 20$  bwo to k'o daniruwotsi aatr bokeewituwok'o wesha. Eshna 20 kaare wotsi talo uutsoko nokeyiyal bojamets ambts kaarewotsi bodetstsok'o aatrni  $20 \curvearrowright 5 = 4$  etiru kayiyi s'een

matsi keewo ak'marats k'o'ora kiitso geyituwe k'oshk'osh s'een taawotsi de'er bodanettuwok'o wosheyiye okona kayiyit bodatsts k'awunts (bbana) ar b̄ewotonat ar wot b̄ek'azon danosha ayiy tanode'er awuk'o ariyo bofalituwok'o aatr daniyo geyituwe.

**Ariya:-** A/  $60 \curvearrowleft 5 = 12$ , hanbwottso  $12 \times 5 = 60$

Bi/  $100 \curvearrowleft 5 = 20$ , hanbwottsoni  $20 \times 5 = 100$

Manatsna terwer 20tse beyiru aatotsi k'oat'otse bofii nituwok'o wosho geyituwe. Mandambatsa kayiyi aap'I probremiyots fiino (awk'o bofinetuwo) "uutsla" etiruman eg bwotok'o keewurni 1/5 (Ikiuutsla) et bwotok'o aap'on (nonon) danbodek'e tauok'o wosha.

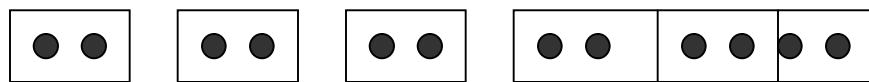
## **Di/ S'EEN TAAWOTSI 1 NAT ZEERON AYIYONAT**

### **KAIYONA S'EEN TAAWOTSI 1 NAT ZEERON AYIYA**

Keezrektan gliwotsi ak' marats k'o'orni bojamets its (bojam rektangliyotsits giit shutswotsi woyin cookiyi shaogtsi bits k'oord daniruwotssh kiitsa keez rektangliyotsitse beyiru shutswots taawo ambtse ? etiru aato  $3 \times 2 = 6$  etiru aaniyo im. Egoshe '2'n ayiya etiruwo bodantsotsna.

Jamrektargliyotsitse beyiru shutswos tsu k'aubayi ambts shuts wots bobe yiruwok'o aatr (basha woyino zeerowa) keez rektangliyo tsetse beyiru shutswots dabo  $0+0+0 = 0$  hani  $30 \times 0 =$  (keezoti zeerowa) Hankona k'osh rektangliyotside'er  $0 \times 0$  etiruwatse tuwur  $10 \times 0$  bborfetso beyiruwotsi fiinar zeero ayiya eto eg et bwotok'o daniya.

**Ariya:-** A/



2 shuts wetsi    2 shuts wotsi    2 shuts wotsi     $3 \times 2$  shurswotsi wotsi

$$\begin{array}{cccc}
 \text{Bi/} & \boxed{\phantom{00}} & \boxed{\phantom{00}} & \boxed{\phantom{00}} \\
 & 0 & + & 0 & + & 0 & 3 \times 0 = 0
 \end{array}$$

K'osh k'osh ariyotsi bodaniye tuwok'o woshiyeyiye okona guupo geyituwe.

$$\text{Ariya:- } A/ 5 \times 0 = 0 \quad D/ 60 \times 0 = 0$$

$$B/ 6 \times 0 = 0 \quad E/ 90 \times 0 = 0$$

$$C/ 10 \times 0 = 0$$

Eeshna jam s'een taawots On (zeeron) aiyewora bē k'awuntso keni bēwotiyalor zero bēwokok'o bobodetuwo k'o woshogeyituwe.

Dambi keewetsok'ona (ariyok'ona bodanimas'afa tse beyiru terwer 21 k'aat'otse bofiinituwok'o woshi

## 1n AYIYA

2 tse tuwer 5 tso bborfetso beyiru taawotsi aiyiyi jaando ak'marats haniyedashtsok'o kiitso geyituwe.

Ariya:-

x	1	2	3
2	2	4	6
3	3	6	9
4	4	8	12
5	5	10	15

Eshna  $2 \times 1 = 2$ ,  $3 \times 1 = 3$ ,  $4 \times 1 = 4$ ,  $5 \times 1 = 5$  etiruwo daniruwots jaandotse s'iilar lookeewituwok'o wosha hank'ona 61,  $7 \times 1$ ,  $1 \times 6$  ---- hanank'o 1 ki ayotsi ariyon k'aat'otse fiinar bokeewyiokona datsets k'awuntswotsatse tuwur haniyedashi guupo bodanetuwo k'o wosha.

Taawjamo 1n b'ayera bk'awuntso taawman btokoni bwotiti (bwoto) daniruwots bokeewituwok'o kup'iya erni bomas'afatse trewer 22 tse beyiru aatotsi k'aat'o nat maaifiinon befiinituwok'o weshr shegsh boda ftarats guud bode k'o s'iilo geyituwe.

## S'EEN TAAWOTSI 1sh KAYIYA:-

Haniye shin daniruwots s'een taawotsi 2n,3n,4n,5n kayiyo bodantsotsna hanatse tuwr bokeewetuwo k'o wosho geyituwe.

**Ariya :-** A/ 8ꝝ2 etoni shuumt keewotsi giitosh taalo  
kayiya eta.

Bi/ 9ꝝ3 etoni jeed'i keewotsi keezokotaal kayiya  
eta.

Eshna 8ꝝ1 etoni shuumto ikosh nokaiyor ambtse ---? 9ꝝ1 eto s'eed'yo ikosh nokaiyor ambtse bbode ? er daniruwotsi boaniyituwok'o aata. k'osh hannari ariyetsi aatr ikesh (Ikon) kayiya eto eg bwoto bo dane tuwo k'o weshi. Haniye okena s'een keew s'amo ikosh bka ewora b̄eimet, s'een taawman bwotok'o bodanetuw ok'o washi. Erniterwer 23 fiinar k'aat'otse bokee wetuwok'o (boshiyetuwok'o) wesho geyituwe, 1nat On newo daniruwots bodane tuwok'o s'aando ok'marats l'oor haniye dashtso k'o kiitso faletuwe.

**Ariya:-** A/ Bi/

x	5	6	9
0	0	0	0
1	5	6	9

ꝝ	1
0	0
20	20
30	30
40	40

Eshna zero jam taawosh (zeeroniye okon) kayiyewora datsetuwo (bbodeti) zeerowa er danbodeketuwo k'o woshi.

**Ariya** :- A/  $0 \curvearrowleft 5 = 0$

Bi/  $0 \curvearrowleft 9 = 0$

Ci/  $0 \curvearrowleft 4 = 0$

Béwoteferé (bwotiyalorni) s'een taaws'amo zero wosh kayiyo) falerauwok'o keewo geyituwe.

## **Ci/ TATSONAT K'OORONA**

Daniruwots danhan k'os'wotsi bodandek'o s'iilo gyituwe.

- 20 yo bborfetso beyiru s'een taawotsi 2n ayiya nat kayiyon bofalituwok'o aati

**Ariya**:- A/  $18 \curvearrowleft 2 = 9$  kayiruuwo = 18 kayiyiruwo = 2 bbana

(bodtsoni) = 9

- ayiyonat kayiyi jageyo bokee wituwok'o aata kayiyere bodiruuho ayiyon boariyituwo k'o aata

**Ariya**:- A/  $16 \curvearrowleft 2 = 8$  hanbweti  $8 \times 2 = 16$

- 3n ayiyonat kayiyi tanwotsi detsts prob lemiyotsi bofiinituwok'o washa.

**Ariya**:- A/  $30 \curvearrowleft 3 = \underline{\hspace{2cm}}$  Bi/  $10 \times 3 = \underline{\hspace{2cm}}$

- Ayiyi bad'iyi newo dabitanats bofiinitu wok'o wosha.

**Aniya**:- A/  $3 \times 8 = 3 (3+5)$

Bi/  $3 \times (8+1) = (3 \times 8) + (3 \times 1)$

- 4n ayiyinat kayiyyi problemiyotsi bofiinitu wok'o aata.

<u>Ariya</u> :- A/		Bi/	
u	ux4		
3			
4			
5			

6	4
8	
12	
16	

- 4n ayiyonat kayiyi aap'i problemyotsi bofiinitu wok'o aata 4n ayiyi bad'iyi newo dab tanats bofiini tuwok'o wosh (aata)

Ariya:-  $4x(3+2) = (4x3) + (4x2)$

$$= 12 + 8$$

$$= 20$$

- 5n ayiyonat kayiyyi aatotsi bofiinituwok'o aata

Ariya :- A/  $10x5 = \underline{\hspace{2cm}}$  Bi/  $50 \times 5 = \underline{\hspace{2cm}}$

- 5n ayiyonat kayiyyi aap'I problemyotsi bofiini tuwok'o aata
- dabé tanats 5n ayi bad'iyi new bofiinitu wok'o aata (wosha)

Ariya:-  $5x(3+2) = (5x3) + (5x2)$

$$= 15 + 10$$

$$= 25$$

- S'een taw s'amo Onat 1n bayor bimetuwo (datsetuwo) eg (ambts) bəwotok'o daniruwotsi aap'on (nonon) aata.
- ‘1’ nat ‘O’ newo bokeewituwok'o aata

Jamona haniye daubit'iintsets (keewets) ariyanotsatse tuwrni daniruwors fiinnaronat k'aat'otse bodets ts dano (fiiwa) siirlni bodandek'onat bok'azon danofale tuwe. Erni bofiinit fiinonaar bwotok' kiitsr kup'yo faletuwe.

## **2.3. SEEN TAAWOTSI 6n, 7n, 8 nat 9n AYIYONAT KAYIYONA (23-perediya)**

**DNHAN K'OS'WOTSI** :- Daniruwots danhan boishtsok'ona

- s'een taawetsi 6ton ayiyituno.
- shartosh (6sh) s'een taawotsi kayiyituno.
- kayiyit bodatsts kawuntso ayiy tanon ariyituno.
- 6ton ayiyonat dabatsi bad'iyitano fiinituno.
- s'een taawotsi 7ton ayiyituno.
- s'een taawotsi 7sh layiyituno.
- 7ton ayiyonat 7 sh kayiyituno.
- s'een taawotsi 8n ayiyituno.
- s'een taawotsi 8sh kayiyituno.
- 8ton ayiyonat kayiyi sageyo keewituno.
- znat 4n ayitsotsi (ayotsi) 8 ayotsnton nokorituno .
- s'een taawotsi 9n kayiyituno.
- s'een taawotsi 9sh kayiyituno.
- 9n ayiyonat 9sh kayiyi jageyo keewituno.
- 3z ayotsi 9 yi ayoysnton nokoriyituno.
- ani (botikon) ayiru taawotsi galituno.

### **DANIYIRUWO FIINA**

**A/ SHINI K'ANA**

Daniyiruwo k'aat'ots kindftsere shini haniye dashi t'iints keewotsi k'andek'o ( fiindek'o) geyituwe.

- Tookham daniyiftser shini daniruwots haniye shn ayiyo nat kayiyon bodantsotsna. Kinda sha s'een taawotsi 5n ayiyonat kaiya etiruwats k'esh k'osh aatotsi k'anidee s'iilo geyituwe. Erni

tookhanitse beyiru 6n,7n,8n,9n, ayiyonat kayiyatse beyiruwotsa ts shergsh k'andee aatotsi shengsh fiindee t'iino gryituwe.

## **DANAAYIY K'AC K'ANIYA**

### **Ariya:-**

- ayiyi janda
- koyiyi janda
- kaarewosh kaik'rets rektangliya
- 2 ti ay detsts flesh kardiya
- 3z ay detsts flesh kardiya
- 9yi ay detsts flesh kardiya
- ani (botokon) ayiru s'een taawotsi

## **Bi/ DANONAT DANIYI AMATSEDAN T'IINT'IINA**

Haniyere shin daniruwots s'een taawotsi 2n,3n,4nat,5n ayiyonat kayiyon bodantsotsna shuuts anar s'iil k'o aatotsi k'anide'er bokeewetu wok'o wosha. Hani hanatse weyet tookoman kindosh shengshituwe.

S'een taawotsi 6n,7n,8nat 9n ayiyonat kayiyona bét'intsok'on keeweyo geyiruwe.

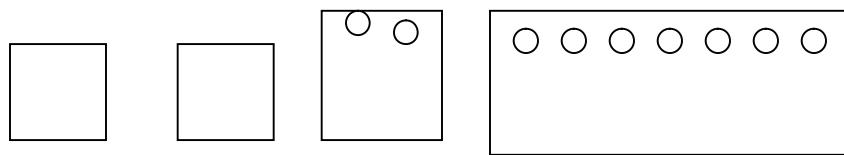
### **2.3.1. S'EEN TAAWOTSI 6n AYIYONAT KAYIYONA**

#### **A/ 6n AYIYA**

shirt shirt gurkotsi detsts rektangliyotsi ak'marats k'o'or kiits.

##### **Ariya:- A/**

$$\begin{array}{ccc}
 \boxed{\textcircled{o} \textcircled{o} \textcircled{o}} & \boxed{\textcircled{o} \textcircled{o} \textcircled{o}} & \boxed{\textcircled{o} \textcircled{o} \textcircled{o} \textcircled{o} \textcircled{o} \textcircled{o}} \\
 6 & + & 6 = 2 \times 6 = 12
 \end{array}$$



$$\begin{array}{ccccccccc}
 \text{Bi/} & \text{ooo} & & \text{ooo} & & \text{o o} & & \text{o o o o o o o} \\
 & \text{ooo} & & \text{ooo} & & \text{o o} & & \text{o o o o}
 \end{array}$$

$$6 + 6 + 6 = 3 \times 6 = 18$$

Danbi keewets ariyi weron jam rektan gliyotsitse 6 gurk'ots bobeyok'o shini keewr kiitsa. Erni git rektangliyotsitse ambts gerkots faano? Eraatr bofiiniyala dabonat ayiyi weren bok'op'e tuwok' daniyirni rektangliyots taawo wonawoniyrni  $1 \times 6$ ,  $2 \times 6$ ,  $3 \times 6$ , - - -  $10 \times 6$  beyiru 6t ayotsi dabodatsituwok'o (datso bofaluwok'o) wosha. Haniye bogodanbodek'isha 6ton ayiyi jando de'erni ak' marats kiitsa. Haniye okona terwer 24tsi aatotsi bofii nituwok'o wosha.

Ariya:- A/

x	1	1	2	3	4	5	6	7	8	9	10
6	0	6	12	18	24	30	36	42	48	54	60

Bi/

A	Ax6
0	$0 \times 6 = 0$
1	$1 \times 6 = 6$
2	$2 \times 6 = 12$

4nat 5n aiyio haniye shin bodantsotsna etoni  $4 \times 6 = (4 \times 2) + (4 \times 4)$ ,  $5 \times 8 = (5 \times 3) + (5 \times 5)$  hanank'o aatotsi kep'o de'er dab tana ts aiyio bas;I newo fiinar kiitsa erni 6 ton aiyio dabtanats bos'iyi newo kiitsosha haniye shini bofiints weron bofiinituwo k'o wosha haniye shini bofiints weron bofiinituwo k'o wosha.

Ariya:-  $6 \times 15 = 6 \times (10 \times 5)$

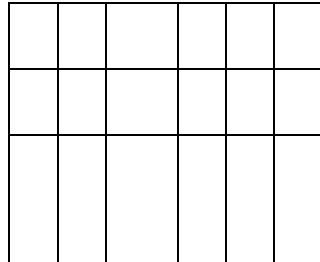
$$\begin{aligned}
 &= 6 \times 10) + (6 \times 5) \\
 &= 60 + 30 \\
 &= 90
 \end{aligned}$$

Haniye okona bodani mas'afatse beyiruterweratse beyiru aatotsi k'aat'o tse bofiinituwok'o wosheyiye okona boaniyo sh ariaaniyo imr bodafta rats k'oo bodek'e tuwok'o wosho geyituwe. Erni 6ton ayiy aap' problemiyotsi awk'o bofiinetuwok'o kiitsr k'oat'otse bokeewetu wok'o gooimo geyituwe.

## **6sh KAYIYA**

Haniye shini 5n kayiya etiruwo sh node k' tsok'ona s'een taawetsi 6tosh kayiya etikuwo haniye dashi bt'iin tsok'ona ok' marats k'o'or kiitso geyituwe.

**Ariya:- A/**

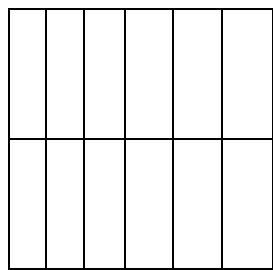


18

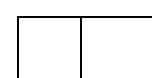


$18 \curvearrowleft 6 = 3$

**Bi/**



12



$12 \curvearrowleft 6 = 2$

Da nbe keewets ariyank' on kaarewok' o kayiyik' rets rektongliyotsi de'er kaarewots taawo taalo shirtoko kayiya etiruwo bodanetuwo k' o wosho geyituwe.

Erni b k' awumtso (bbodtso) ar bwotok' o egosh bwottsov' o ak' marats k' o' or kiitsa

**Ariya :-** A/  $18 \curvearrowleft 6 = 3$  hanbwettsoni  $3 \times 6 - 18$

Bi/  $12 \curvearrowleft 6 = 2$  han bwottsoni  $2 \times 6 = 12$

Han bodaniye okona bodoftarats shergsh bok' o'odek' e tuwok' o woshrni haniye bogo bodanisha kayiyi s'ando de'erni kayiyi dano (falo) enh bodek' etuwok' o kup' yo geyituwe.

**Ariya :-**

A	$A \curvearrowleft 6$
60	
36	
78	$78 \curvearrowleft 6 = 13$

Hanatse anarni bodani mas'afatse beyiruterwero 26 nat aap'I problemiyotsna maafiinonat k'aat' fiinonaer kaide'e imrni k'aat'otse bokeewetuwok' o wosha. Hanora daniruwots niyirniyiron keyer (tawr) ak' marats k'oor boetetuwo k' o' woshr bofiinosh ar anijo imr shengsh bodaftarats k' o' bodek' e tuwok' o wosho geyituwe.

### 2.3.2. S'EENT AAWOTSI 7n AYIYONAT

#### KATIYONA (5 perediya)

**A/ 7n AYIYA:-** Haniyere shin s'een taawotsi 6 ton ayiya etiruwatse rektangliyotse beyiru gurkots ayo (taawo) dabonat bad'iyon bodantsok' owa, andor s'een taawotsi 7sh keyiya etirowona danbi keewetsa tsetuwurni haniye dashi t'iintsetsank' on kiitsa.

Ariya:- A/

$$\begin{array}{c}
 \begin{array}{|c|c|c|} \hline
 \circ & \circ & \circ \\ \hline
 \circ & \circ & \circ \\ \hline
 \circ & & \\ \hline
 \end{array} & + & 
 \begin{array}{|c|c|c|} \hline
 \circ & \circ & \circ \\ \hline
 \circ & \circ & \circ \\ \hline
 & & \\ \hline
 \end{array} & = & 
 \begin{array}{|c|c|c|c|c|c|} \hline
 \circ & \circ & \circ & \circ & \circ & \circ \\ \hline
 \circ & \circ & \circ & \circ & \circ & \circ \\ \hline
 & & & & & \\ \hline
 \end{array} \\
 7 & & 7 & & 2 \times 7 = 14
 \end{array}$$

Bi/

$$\begin{array}{c}
 \begin{array}{|c|c|} \hline
 \circ & \circ \\ \hline
 \circ & \\ \hline
 \end{array} & + & 
 \begin{array}{|c|c|} \hline
 \circ & \circ \\ \hline
 \circ & \\ \hline
 \end{array} & + & 
 \begin{array}{|c|c|} \hline
 \circ & \circ \\ \hline
 \circ & \\ \hline
 \end{array} & = & 
 \begin{array}{|c|c|c|} \hline
 \circ & \circ & \circ \\ \hline
 \end{array} \\
 7 & + & 7 & + & 7 & = & 3 \times 7 = 21
 \end{array}$$

Ariyank'ona ak' marats k'o'or (gudr) jam rektangliyotsitse 7 gurkots bobeyok'o shini kiitsrni giltrekta ngliyotsitse ambts gurkots faano? keez gurko tsetse ambts gurkots faano? er aatrni daniruwots boaniyituwok'o kup'iya. erni ayiyonat daniweron bok'op'e tuwok'o tewureriya.

Ariya:- A/  $7+7+7 = 3 \times 7$

Bi/  $7+7+7+7 = 4 \times 7$

Hanatse anarni rektangliyotsitse beyiru gurkots taawo wonawoniyirni  $1 \times 7, 2 \times 7, 3 \times 7, 4 \times 7, 6 \times 7, 7 \times 7$  --- beyiru 7t ayotsi datso bofaluwok'o woshrni shengsh dan bode k'e tuwok'o woshrni ani 7tan ayiyi jando de'er ak'marats gud'r kiitsrni terwer 27to maa fin onat k'aat' fiinon bofiinitu wok'o wosha.

Bi/

Ariya: A/

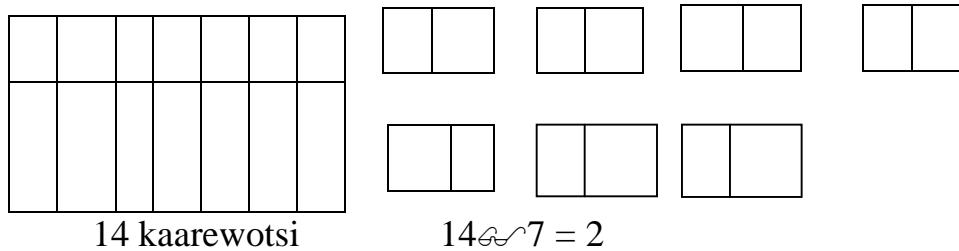
A	$A \times 7$
0	$0 \times 7 = 0$
1	
2	
3	

x	0	1	2	3	4	5	6
7							

Dambi keewets (tiintsets) ariyok'on botewreriye okona daniruwots mas'afatse beyiruter werotsnat aap'I problemiyotsn bofiinituwok'o wosho geyituwe. Haniye okona bofinosh arwotts anijo imrni shengsh bodafta kats k'o'obode k'etuwo wosha.

**Bi/ 7sh KAYIYA:-** Haniyere shini 6sh kayiya etiruwo k'on ak'marats k'o'or bodanetuwok'o weshi.

**Ariya:-**



Rektanglimaac'o kaarewosh kayide'erni larewots taawotaalosh 7 tho k'aad'rni kayiya etiruwo bodanetuwok'o wosha Eerni bbano arbwoto danosha "Egeshe" etiruwo de'ercni ak'marats haniye dashtsan k'on kiitsa.

**Ariya:-** A/  $14 \curvearrowright 7 = 2$  hanbweti  $2 \times 7 = 14$

$$\text{Bi/ } 28 \curvearrowright 7 = 4 \text{ hambweti } 4 \times 7 = 28$$

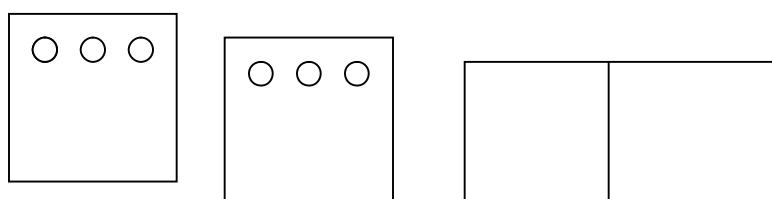
Etiru ayiyonat kayi yonat kayiyi jageyo de'erni "bana" etiruwo ar bwoto daniyo geyituwe. Er daniruwots mas'afatse beyiru terwer 28 nat aap'I problemiyotsn moonat k'aat' fiinon bofiini tuwok'o wosha. bofinosho ari anijo imrni shengsh bodaftarats guu' bodek'etuwo wosho geyituwe

### **2.3.3. S'EEN TAAWOTSI 8 ton AYIYONAT KAYTYONA**

#### **(6 perediya)**

##### **A/ S'EEN TAAWOTSI 8n AYIYA**

S'een taawotsi 6nat 7n ayiya etiruwo daniye ts weerana (daniyetso k'ona) 8n ayiya etiruwono haniye dash tsan k'on kiitso geyituwe.



**Ariya:- A/**

$$\begin{array}{c}
 \begin{array}{ccc} \circ & \circ & \circ \\ \circ & & \circ \end{array}
 \quad
 \begin{array}{ccc} \circ & \circ & \circ \\ & \circ & \circ \end{array}
 \quad
 \begin{array}{cccccc} \circ & \circ & \circ & \circ & \circ & \circ \\ \circ & \circ & \circ & \circ & \circ & \circ \\ \circ & \circ & & & & \circ \end{array}
 \\
 8 \quad + \quad 8 \quad = \quad 2 \times 8 = 16
 \end{array}$$

Bi/

$$\begin{array}{c}
 \begin{array}{c|c|c|c}
 \text{oo o} & \text{ooo} & \text{ooo} & \text{oo} \\
 \text{ooo} & \text{ooo} & \text{ooo} & \text{oo} \\
 \text{oo o} & \text{oo} & \text{oo} & \text{oo} \\
 \hline
 8+ & 8 & + & 8 = 
 \end{array}
 \quad
 \begin{array}{c|c|c|c}
 \text{oo} & \text{oo} & \text{oo} \\
 \text{oo} & \text{oo o} & \text{oo} \\
 \text{oo} & \text{oo} & \text{oo} \\
 \text{oo} & \text{oo} & \text{oo} \\
 \hline
 \end{array}
 \\
 3 \times 8 = 24
 \end{array}$$

Ik rektangliyotse beyiru gurkots taawo danosha etoni 98, 108, etiruwo kiitsosha 80nat 72 t aukotsi fiino faleroawo tsna aniani dabi malonat jando de'er boffinituwo k'owosho geyituwe. Hanora  $8+8 = 2 \times 8$ ,  $8+8+8 = 3 \times 8$  etiruwo ak'marats k'oor kiitsrni ter wero bofiinituwok'o wosha. Haniyere okona 8 t ayotsnat 4d ayotsn 2ti ayotsnton bodetstsjageyo ak'marats k'e'or kiitso geyituwe.

**Ariya: - A/**

x	0	2	3	4	5	6	7	8	9	10
2	0	4	6	8	10	12	14	16	18	20

Bi/

x	0	1	2	3	4	5	6	7	8	9	10
4	0	4	8	12	16	20	24	28	32	36	40

Ci/

x	0	1	2	3	4	5	6	7	8	9	10
8	0	8	16	14	32	40	48	56	64	72	80

Dambi s'andan s'iilrni 4n ayits (ayo) s'amwots 1ti ay bowotonat 8t ayots 4nat 2 ti ay bowoto kiits rni tookhan shirots se beyiruterwerotsi bofiinituwok'o wosho geyituwe.

## Bi/ 8sh KAYIYA

Haniyere shin 1-7ts bborfetso beyiru taawotsn s'een taawotsi layiyo bofiints weerona 8sh bokayiyituwok'o hanara bokayiyts bobano ar bwoto k'o danosh ariyo boimetuwok'o wosha.

**Ariya:-** A/  $72 \curvearrowleft 8 = 9$  hambwoti  $9 \times 8 = 72$

Bi/  $64 \curvearrowleft 8 = 8$  han bwoti  $8 \times 8 = 64$

Hank'ona tookhanshirotse beyiru terwerotsi boffiinituwo k'o wosho geyituwe.

### 2.3.4. S'EEN TAAWOTSI 9n AYIYONAT K'AYIYONA

#### (6perediya)

A/ **9n YAIYA**:- Haniye shini bodantso k'on s'een taawotsign ayiyo falituno. Bwotiyalorni jandanat bomac'o karewosh kayiyi (k'aat'k'rets) rektangli yotside'er terurero geyituwe.

**Ariya:-**


$3 \times 9 = 27$

Kaarewots ambts bowoto taawo mawe tuwotsna daniruwotssh bits dabr kiitso geyituwe.

**Ariya:-** A/  $9+9 = 2 \times 9$  Bi/  $9+9+9 = 3 \times 9$   
 $= 18$   $= 27$

S'een taw k'atswotsi 9n ayiya (aniani daba) bofiini yere okona jando ak'marats k'o'or fiino geyituwe.

**Ariya:-**

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

9									
---	--	--	--	--	--	--	--	--	--

Anianidabonat ayiyi jandan bofiiniyere okena tookhan shirots  
beyiruterwerotsi k'aat' fiinan bofiinituwok'o washrni daniruwots  
niyirniyiron tuwur ak' marats bofiinituwok'o wosho geyituwe.

## 9yi AYOYSI

1-10 bborfetso beyiru s'een taawotsi daniruwots 3nat 9yi ayotsi detssts jando  
bofiinituwok'o wosha.

### Ariya:-

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

1-10 beyiru taawotsitse iko deerni 3nat gyi ayi ayotsi dek'a

### Ariya:- $2 \times 3 = 6$

$$2 \times 9 = 18$$

Eshe 3n ayots mbtsan 9n ayots ambtsn err atrni 9yi ayoni keezoti keeziaye  
(keez kasha) err damiruwo ts bokewituwok'o washa.

Hank'ona 1-10 beyiru s'een taawotsn ayirni gnat 3 ayotsi nokoriyirni haniye  
dashi keewi guupan danbo dek'etuwo wosho geyituwe.

9yi ayiwetts s'een taw jamo 3aya

Dambi keewetsan k'on bedaniye okona tookhan shirots  
bofiinituwok'o washrni aap'i problemiyotsi bofiinituwok'o kup'iyo  
geyituwe.

## Bi/ S'EENT TAAWOTSI 9sh KATYIYA

Haniyere shini s'een taawotsi 2sh,3sh, 4sh, 5sh, 6sh, 7sh, 8sh kayiya etiru weron kiitsrni bbanonu (kowuntso) arb woto kiitsrni ari bano (bodetuwo) datso bofalu woklo wosha.

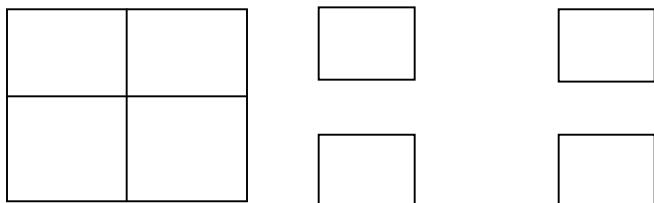
**Ariya:-** A/  $72 \div 9 = 8$  hambwoti

Bi/  $90 \div 9 = 10$  hambwoti  $10 \times 9 = 90$

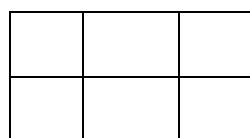
### 2.3.5. AANI AYEF S'EEN TAAWOTSI

Kaare worek'e to (nas) de'er aani ayiruwo eto eget bwoto haniyedashtsan k'on kiitsa

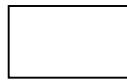
**Ariya:-** Ik kaare wore k'eto btaalotsedasha nonat girmanon mek'efiyon k'ut'rni kiish de'er daniruwets ambts kaare bwotok'o bodanish (bokeewish) aata.



Dambi aran its'iilor ambts kaarewots fa'ano girman (natk'omande) ? dashanewo ambts kaarewots fa'ano? er aatnri  $22 = 4$  kaarewotsi bowotok'o kiitsa. Hanats na giit taawots boatse atseyon ayat (ayiyat) awo daatsro. Taawawuman taw giito eega eriyya bs'eegefe er damiruwotsi aata. Hani giit aniani (bitsbits) botokon) ayiruwotsi eta'etego. Han k'ona 1-10 beyiru s'een taawotsi miyir niyiron de'er aniani (botokon) ayiruwots ayo k'oat'otse daniruwots bokee wetuwo k'o wosha. Han k'ana k'osh k'osh s'een taa wetsi daniruwots botokon bogeyituwok'o maa fiinonat k'oat' fiinon imrni bofinats ari anijo (arifiino) imr bodaftarats guud' bo dek'etuwo k'o wosji



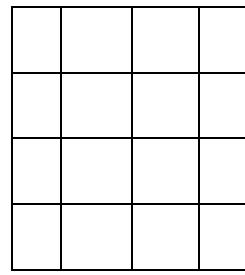
### Ariya A/



$$1 \times 1 = 1$$



$$3 \times 1 = 3$$



$$4 \times 4 = 16$$

- $1 \times 1 = 1$  Eshna 1 koni 1 ani ayit datseka
- $3 \times 3 = 9$  Eshna 9ui 3 ani ayit datseka
- $4 \times 4 = 16$  Eshna 16 ni 4 aniyit datseka

Gawude'ere :-

1tsetut 100ts bborfetso beyiru s'een  
taawotsitse ani ayits s'een taawotsi 1,4  
9, 16, 25, 36, 49 64, 81 nat 100 na

### **Ci/ TATSONAT K'OORONA**

Daniruwots too khan k'os'o bodan dek'onat bok'azon danosha bofiino s'iilo geyituwe.

- s'een taawotsi 6n ayiyi detsts s'aando baashotsi bos'eentsi tuwok'o wosha.

### Ariya:-

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

- S'een taawotsi 6sh kayiya etiru jeando bos'eentsituwok'o aata.

**Ariya**:-

6
30
60
36
18
24

- Ayiyonat kayiyi jageyo aata

**Ariya**:-  $42 \curvearrowleft 6 = 7$  hanbwoti

- 6n ayiyonat kayiyi ket aap'i problemiyotsi awk'o fiinetuwo k'onat bobitso aata.
- 6n ayiyonat bad'I newo dabitanats aatotsi aata

**Ariya**:-  $6 \times (4+2) = (6 \times 4) + (6 \times 2)$

$$= 24 + 12$$

$$= 36$$

- S'een taawotsi 7n ayiyosh aap'onat k'op'iaatoaata.

**Ariya**:- A/  $4 \times 7 = 28$  Bi/  $7+7+7+7 = 4 \times 7$

$$= 28$$

- S'een taawotsi 7sh bokayiyituwok'o aata

**Ariya**:- A/  $70 \curvearrowleft 7 = 10$  hanbwoti  $10 \times 7 = 70$

$$\text{Bi/ } 28 \curvearrowleft 7 = 4 \text{ han bwoti } 4 \times 7 = 28$$

- 7n ayiyonat kayiyi ket aap'i problemiytsi maa fiinonat k'aat'i fiinon bofiinituwok'o imrni bofiinfiino s'iila
- k'osh k'osh 8t ayotsi aatrni maafiinonat k'aat' fiinen bofiinituwok'o woshrni bofiinosh ari fiino imo geyituwe.

**Ariya** :- A/  $10 \times 8 = 80$       Bi/  $11 \times 8 = 88$

- k'osh 8n kayiyi aatotsi maafiinanat k'aat' fiinan bofiinituwok'o woshrni bofiinatsa araniyoima .Hanora ayiyonat kayiyi jageyo keewa

**Ariya** :- A/  $64 \curvearrowright 8 = 8$  hanbwoyi  $8 \times 8 = 64$

Bi/  $88 \curvearrowright 8 = 11$  hanbwoti  $11 \times 8 = 88$

- 8t ayotsi bokeewituwok'o aata
- 2, 4 nat 8 ayotsi nokoriyirni shir ayotsi bogalituwok'o wosha.

**Ariya**:- 16to 2ti aya

16 to 4ti aya

16 to 8 t aya

- k'osh k'osh an ayiyi aatotsi moonat k'aat'otse bofiini tuwok'o wosha (aata)

**Ariya**:- A/  $10 \times 9 = 90$  Bi/  $11 \times 9 = 99$

- 9n kayiyi aatotsi maanat k'aat'on bofiinituwok'o aatrni bofiino ariyo geyituwe

**Ariya**:- A/  $72 \curvearrowright 9 = 8$  hanbwoti  $8 \times 9 = 72$

Bi/  $81 \curvearrowright 9 =$  hanbwoti  $9 \times 9 = 81$

- 3 nat 9 yi ayotsi keewr shiron bodetsts ayotsno bogalituwok'o aata.

**Ariya**:- A/ 3z ayotsi 3, 6, 9 ----

Bi/ 9yi ayotsi 9, 18, 27 ----

Ci/ 3nat 9 yi ayotsitse koni 9

- Ani (botokon) ayiru s'een taawotsi bokeewituwok'o aata.

**Ariya**:- A/  $2 \times 2 = 2$  Ci/  $5 \times 5 = 25$

Bi/  $3 \times 3 = 9$  Di/  $6 \times 6 = 36$

Jamona dambi keewetsotsatse tuwrni k'ash weeron s'il rni daniruwots bidetsts dande k'o enshesh, danosh, dani k'os'o bodeshdek'o dano faletuwe.

## 2.4. TANWOTS SHINE SHUUTSA (2 perediya)

Danhan k'os'wotsi:- daniruwots k'oot' tookhan boishi yere okona:-

- giit taawitan detsts aatotsi fiinituno
- loo bodet s'een taawotsi ayiyonat dabi tano (giit tan detsts aatotsi) ket aap'i problemiyotsi fiinituno
- loo bborfetso beyiru s'een taawotsi syiyenat k'awitan detsts ket aap'i problemiyetsi fiinituno
- loo bborfetso beyiru s'een taawotsi kayiyonat dabitan detsts ket aap'i problemiyotsi fiinituno
- loo bborfetso beyiru s'een taawotsi kayiyant k'aiwi tan detsts ket aap'i problemiyotsi fiini tuno.

## **DANIYIRUWO FIINA**

### **A/ SHINI K'ANA**

- Haniyere shin daniruwots awudnari taw tan wotsi etoni daba, k'awa, ayiyonat kayiyonaetiruwo eg bwoto ankat aatotsn danbode k'tsotsna (dano bodetso tsna) biyatse tuwet keewotsi k'aat'otse tizr bokeowetuwo k'ana—
- Hanank'o aatotsi fin deer t'iintso geyituwe.
- Danaayi k'ac'wotsi k'aniya.

**Ariya**:- loo bberfetso beyiru s'een taawotsi dets ts ayiyi janda.

### **Bi/ DANONAT DANIYI AMATSE DANT'IIN T'IINA**

Daniruwots aniyere shini bodants taw tani narotsatse tuwurni giit taninar detsts aatotsi bofiinitu wok'o wosha.

**Ariya**:- A/  $5 \times 4 + 22 = 20 + 22 = 42$

$$Bi/ 5+4 \times 2 = 5+8 = 13$$

Ariyank'o k'osh giit tannor detsts aatotsi ak'marats k'o'orni shini ayitano bofiink'riye okona dabtano bofiinituwok'o kiitsr daniya. Haniye anarni terwero bofiinituwok'o woshrni bofinats arianiyo imrni shengsh bodoftarats k'o'o bodek'e tuwok'o wosha

Ayiyonat dabitan detsts aatotsi fiinoshsha shini ayitano fiinarni maniye okona dabi tano bofiinituwok'o keewo geyituwe.

### **A/ AYIYONAT K'AUWI TANWOTSI**

Ayiyonat k'awitan detsts aatotsi fiinoshsha shini aato ak'marats k'oorcni haniye dash tsank'on kiitsa.

Ariya:- A/  $8-2 \times 3 = \underline{\hspace{2cm}}$  etiruwan fiinoshsha shini ayiyi  
tano fiinorni biatse anar k'a'wi tano fiina

$$Bi/ 6 \times 3 - 5 = 18 - 5$$

$$= 13$$

Hanank'o aatotsi niyirniyiron daniruwots bodaniye okona tookanitse beyiru terwerotsi bofiinituwok'o washrni bofinosh arianiyo imr shengsh bodaftakats k'o'o bodek'etuwok'o wesha. Hanatsna gup'keewoim shini ayiyo boyatse anar k'awo befiinituwok'o keewi.

### **Bi/ DABONAT KAIYI TANWOTSI**

Ariya:- a/  $10 \curvearrowleft 2 + 6 = 5 + 6$  Bi/  $6 + 4 \curvearrowleft 2 = 6 + 2$   
= 11 = 8

Aniyank'on aatotsi ak' maarats k'oorni dabonat kayiyi tanwotsi bofiinituwok'o woshrni terwero tsi bofiini tuwok'o woshrni bofiinosh arianiyo ima. shini kayiyosh maniyere oken dabo fiino bafalituwok'o keewi

### **Ci/ AYI YONAT K'AWITANWOTSI.**

Ariya:- A/  $15\cancel{6}^3 - 5 = 5 - 5$

$$= 0$$

Bi/  $15 - 4\cancel{6}^2 = 15 - 2$

$$= 3$$

Dambi tiintsets ariyonk'ona aatotsi ak'marats awk'o bofiinituwok'o kiitsa. Hanora tanwotsitseawu bshini tuwok'o daniruwotsi aatr keewe yo geyituwe. Maniye okona maa fiino bofiini tuwok'o wosheyiere okona arianiyo imo geyituwe.

### **Di/ K'EP'ONAT AWD TAWI TANWOTSNA**

Jamona giitonat giite dambi tanwotsi detsts aatotsi fiinosha.

1. shini kep'otse beyiru tanwotsi fiina
2. kep'atse anarni kayiyo bbeyal kayiyo fiina
3. kayiyatse anarini ayiyo bbeyal ayiyitanofiina
4. ayiyatse tuwr dabitanu bbeyal dabitanu fiina
5. s'uwartsna kawi tano bboyala kawitanu fine

### **Ci/ TATSONAT K'OORONA**

Daniruwots tookhan bodaniye okona denbode k'o s'iilogeyituwe

- awd taawi tanwotsitsna giit tanwotsi detsts aatotsi bofiinituwok'o aata.
- awd taawitanwotsitsna giit tan detsts ket aap'I problemyotsi bofiini tuwok'owosha.

Ariya:- A/  $10 \times 3 + 0 = 30 - 0 = 30$

Bi/  $18 - 4 \times 1 = 18 - 4 = 14$

Ci/  $30 \approx 5 + 6 = 6 + 6 = 12$

Di/  $40 \approx 4 - 5 = 10 - 5 = 5$

## **2.5. SHUUTS ANAR S'IILONAT GUUP'TE WERONA (5 perediya)**

Daniruwots mas'afotse keewots shengsheng keewotsi ariyon teudee shuuts anar s'iila .Dabni k'o'anitse daniruwots bodanor bosh galerawo bbeyala daniya haniyer okona guup terwerotse k'ats wotsi k'aatotse daniruwo tsnton keewefets bofiiniyere okona k'atsona maa fiinonat k'aat' fiinona er s'iilde'e imr bofiinituwok'o wosha. Erni b s'uwartsna bofiinosh arimo geyituwo bbeyal imo geyituwe.

### **K'OT'OK -3**

#### **3. 100 (bal) BORFETSO BEYIRU S'EEN TAAWOTSI (12 perediya)**

**K'OS' JAMWOTSI** :- Daniruwots ham dan bok' ridere  
okona

- 1000re dashi 100li ayotsi (100n ayits) s'een taawotsi galituno
- 1000 bbor fetso beyiru s'een taawotsi nababituno.
- 1000 bborfetso beyiru s'een taawotsi k'opetuno.
- 1000 bborfetso beyiru giit s'een taawotsi “<”n, “>” nat “=” etiru milkituwotsn nokoriyituno 1000 bborfetso beyiru s'een taawots maa k'awntso nkeewituno

### **DAN AAYIY K'AC'WOTSI**

#### **Ariya**

- Taawi toos'a.
- otse tuwr gyo bborfetso beyiru s'eentaawo tsi dets flesh.  
kardiya, abakesiya.
- 100 ayotsi detsts flesh kardiya.
- keez fideli detsts s'een taawotsi bomaa k'awntson.  
detsts jaanda.
- “<” , “>” nat “=” etiru c'ir dets ts flesh kar diya ---

### **DANIYI RUWO FIINA**

Haniye shin daniruwots 100 bber fetso beyiru s'een taawots ayo daatso k'op'onat nanabon bodantsotsna shuuts anar s'iilosh bshangisha hanguuratse aatotsi titrni bokeeweyish t'iintso geyituwe. Erni daniruwots t'awash 1000 ayotsigalona keez fideli bborfetso beyiru (detsts) s'een taawotsi bomaa k'awuntonson k'o'pnat nababonat giit s'een taawotsi dan bodek'etuwo'k'uwa.

Dambi keewetsi dan aayii k'ac'wotsi de'er daniruwots danobodetse tuwo'k'o wosho geyituwe.

#### **3.1. 100 AYOTSI (4 perediya)**

Danhan k'os'wotsi:- daniruwots tookhan bodaniyere okona

- 100li ay k'atswotsi keewituno
- 100liayi s'een taawotsi dabeyiruwotsn bad'ituno
- 100li ayi s'een taawotsi nababituno
- 100li ayi wotts s'een taawotsi k'op'etuno.

### **DANIYIRUWO FIINA**

#### **A/ SHINI K'ANA**

Daniyiruwo k'aat'ots bkindf tsere shini haniye dashi keewano tsi ( fiinnotsi) fiinde k'o bçgeyituwe

- tookhan daniyiftsere shini daniruwots bodants lots ayotsatse tuwrni jiik'aanar s'iilk'o aatotsi k'aat'otse bokeewetuwo'k'o t'iints. Erni k'ot'anitse beyiru looli ayonat terwerotsn fiino sha shengsh k'onde'er t'iino geyituwe.

### **DAN AAYI K'A'WOTSI K'ANIYA**

- taawitoos'a
- 0-9 beyiru s'een taawotsi detsts flesh kardiya
- abakesiya ----

### **Bi/ DANONAT DANIYI AMATSE DANT' IINT'IINA**

Haniyere shin daniruwots 2ti, ayo, 3ti ayo, 4di ayo --- ayi ayo bodan tsotsna tuwosha 9yi ayotsitzrni k'aat'otse keeweyo geyituwe.

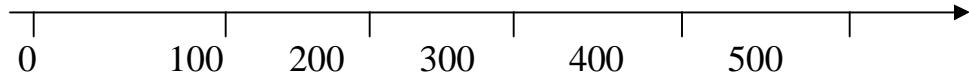
**Ariya**:- A/  $10 \times 9 = 90$

Bi/  $11 \times 9 = 90$

Hanats tuwr  $99+1 = 100$  etiruwo ak' marats k'oorni aap'ona yediye jeed'iyats iko dabeyora bala bwatitier daniruwots wots danbode k'etuwok'o wosho geyituwe. Erni bodoftarats k'o'o bode k'e tuwok'o woshogeyituwe.

Hanatse anarni daniruwots 100 etiru s'een taawo bodaniyere okona k'osh 100li ayiwotts s'een taawotsi haniyere dashtsan k'on kiitsa.

**Ariya**:- A/  $100+100 = \underline{\hspace{2cm}}$  etiruwo ak'marats k'oorni daniruwots bonababituwok'o woshrni bodabeyo ambts bwoto aata. Manatsnowere ik balats ik balo dabeyor giit bala bwotit etiruwo taawonat fiideliyen k'o'or daniya.  $100+100 = 200$  hanora taawi toos'o de'er kiitso geyituwe.



K'ot' giitotse bodantso k'ona 100+100 etiruwona 2100 etiru ayiyitanon bo keewituwok'o aata. manatsna bodaftarats bok'op'e tuwok'o woshi Hanwere 200ni 100li ayi bwoto keewrni haniyerdosh tsank'ona 100liayo daniyogeyituwe.

**Ariya:-** Bi/  $100+100+100 = \underline{\hspace{2cm}}$  etiruwana ak'ma rats k'oorni balo ambsot bits bits dabeyi erra aatrni hanora  $100+100+100 = 300$  bwoto keewrni 100li ayibwoto kiitsr ayiyitanon bok'op'etuwo k'o woso geyituwe. kee balona giit balon bodan ts weron er 1000 bbor fetso beyiru 100li ayi s'een taawotsi daniya

$$\begin{aligned}\textbf{Ariya:-} \quad A/ & 100+100+100+100 = 4 \times 100 = 400 \\ & Bi/ 100+100+100+100+100 = 5 \times 100 \\ & \quad = 500 \\ & Ci/ 100+100+100+100+100+100 \\ & \quad = 6 \times 100 \\ & \quad = 600\end{aligned}$$

Hanank'o aatotsi ak' marats k'oor bodaniyea okona bodani bodani mas'afatse beyiru terwerotsi maa fiinonat k'aat' fiinon bofiinituwok'o wosha, nababa. k'op'anattanon bofalo s'iilogeeyituwe.

Hanats anarni 100li aywotts s'een taawotsi bo dabotsn (dabeyiruwotsi) bad'iyir k'op'o bofaluwo k'odaniyo geyituwe.

$$\begin{aligned}\textbf{Ariya:-} \quad A/ & 400 = 300+100 \\ & = 200+200 \\ & = 100+100+100+100 \\ & Bi/ 800 = 400+400 \\ & = 300+500 \\ & = 200+600\end{aligned}$$

$$= 100+700$$

Hanank'o aatotsi ak'marats k'o'orni daniruwots bodane tuwok'o wosha. maniyere okena shengsh bofiino danosha niyirniyiron keyer ak'marats bofiinituwok'o woshrn bofiinoshsha arianiyoimrni bodafttarats k'o'o bode k'etuwo k'etuwok'o wosho geyituwe.

## **TATSONAT K'OORONA**

Daniruwotssh dan hanbgalonat b k'azon danosha s'iilogeuyituwe.

### **Ariya:-**

- 100 liaywotu s'een taawotsi aap'on bokee wituwok'o aata
- 100li aywotts s'een taawotsi k'o'or bokee wituwok'o aata
- 100li aywotts s'een taawotsi bodabotsn (dabeyir uwotsn) bad'iyir bok'op'e tuwok'o aata
- 1000ye dashi 100li ay wotts s'een taawotsi bonaba bituwok'o aata.
- daniru wots mas'afatse beyiru terwerotsi maa fiinonat k'aat' fiinon er bofiinituwok'o woshrn ari aaniyoima.

### **3.2. 101 tse tuwr 1000 Bborfetso Beyiru S'een**

#### **Taawotsi (4 perediya)**

Danhan k'os'wotsi:- daniruwots danhan bo'ishiye okona:-

- 100li ay wetts s'een taawotsats ik fideli yets s'een taawotsi dabituno.
- keez fideliyets s'een taawotsi 100li ayonatik fideliyets s'een taawotsn bodabeyotsn (dabeyiruwotsn) bad'iyir k'op'etuno.
- 1000 bodet s'een taawotsi bomaa k'awun tson k'op'etuno.

## **DaNIYIRUW FIINA**

### **A/ SHINI K'ANA**

Daniyiruwo k'aat'ots daniyosh kindftder shini haniye dashi keewanotsi (fiinanotsi) fiindek'o bigeyituwe.

- tookhan daniyiftsere shini daniruwots 100li ayotsi nababo, guut'onat bodabotsn bad'iyidee k'op'o bofalsotsna shuuts anar s'iilosh bshengisha aatotsi k'aat'otse keeweyosh k'aniyo geyituwe manatsnower loltse tuwr 1000 bborfetso beyiru s'een taawotsi s'iilituwona eget bwoto k'o daniyosha shengsh k'ande'e t'iino geyituwe.

## **DAN AAYIY K'AC'WOTSI K'ANIYA**

- 100li ayotsi detsts flesh kardiya
- abakesiya
- keez fideliyets s'een taawotsi bomaa k'awntsonten dets glesh kardiya.

## **Bi/ DANONAT DANIYI AMATSE DAN T'IIN T'IINA**

Haniyere shin daniruwots 100wayotsi nababo, k'op'o nat bodabeyotsn bad'iyide'erk'op'o danrno. Eshna tookhan daniyosha shini 1000 bborfetso beyiru 100liayotsi (100n ayitsotsi) wotts s'een taawotsi bodabeyotsn bad'iyide'er k'op'a etiruwo shuuts anar s'iil k'on k'aat'otse bokeewetuwo k'o t'iintso geyituwe.

$$\text{Ariya:- } A/ 200 = 100+100 \quad Ci/ 700 = 400+300$$

$$Bi/ 300 = 200+100 \quad Di/ 900 = 400+500$$

Hanatse anarni 100n ayits s'een taawotsatsa ik fideliyets s'een taawotsi daba etiruwona eg bē woto haniye dashtsank'on ak'marats k'o or kiitsa.

$$\text{Ariya:- } A/ 100+1 = 101$$

$$Bi/ 100+4 = 104$$

$$Ci/ 200+6 = 206$$

$$Di/ 900+9 = 909$$

Hanank'o aatotsi niyirniyiron daniruwots bokee wituwok'o (bedanetuwo k'o) wosh. Hanora s'een taawotsi taawon, fideliyon nababonat k'o p'o bofaliwu wok'o bitsbits (aniani) gargaro geyituwe. Hanats anarni danhan shengsh

shaniyosha (daniyosha) danaayiyi k'ac'wotsi k'anide'erni etoni 100li ayotsi  
(soon ayitsotsi) detsts flesh kariyo k'anide'er kiitsa.

$$\text{Ariya:- } A/ \boxed{100} + \boxed{1} = \boxed{101}$$

Tookhan anianibodaniyeo okona terwerotsi maa fiinonat k'aat' fiinan bofiini tuwok'o woshrni bofinosha ari ayivoimo geyituwe.

Dambi keewetso k'ona 100 ay wotts s'een taw otsatsa ik fideliyets s'een taawotsi daba etiruwo eg et bwotok'o dani ruwots danbodel'iye okona jamona (dabtdatsetso) bodabetsotsn bad'iyide'ere k'op'o haniye shin bodan tsotsna manuweron damhan haniyere dashtsank'o tuwo geyituwe.

$$\text{Ariya:- } A/300 = 200+100 \quad Bi/ 200 = 100+100$$

Ariyank'ona k'aat'otse keewe yaronioni keez fideliyets s'een taawotsi bodabeiruwotsn bad'yirni 100li ayotsnat ik fideliyets s'een taawots jamo( dabt datsetso) bad'iyide'e k'op'o bofalizuwok'owa haniye dashtson k'on kiitsi.

$$\text{Ariya:- } A/ 405 = 400+5 \quad Bi/ 806 = 800+6$$

$$Ci/ 907 = 900+7 \quad Di/ 505 = 500+5$$

Hanank'o aatotsi 100li ayonat ik fideliyets s'een taawi dabona aniani (bits bits) k'oor bodane tuwok'o woshe yiye okona bodani mas'afatse beyiru terwerotsi k'a atonat maa fiinon bofiinituwok'o woshrni bofiino shaari anivoimo geyituwe.

Bs'uwartsna keez fideliyets s'een taawotsi bomaa k'awunotson mababa, k'op'onat dabeyiru wotsn bad'iyide'e k'ep'o bofalist haniyere dashtsank'on kiitsa

$$\text{Ariya:- } A/ 4.05 \text{ s'enn taawhana balwotsn}$$

tatswotsnot ikwotsn k'op'a

$$Bi/ 400+0+5 = awd balwotsi, zero tarwotsi$$

shrt ukwotsi

<b>Ci/ <u>S'een taawa</u></b>	<b>Balwotsi</b>	<b>Tatswotsi</b>	<b>Ikwotsi</b>
112	1	2	2
234	2	3	4
756	7	5	6
908	9	0	8

Hanank'o aatotsi niyir niyiron deer ak'marats k'o'or balimaa, tatsimaa, Ikimaa etiruwotsi jaando de'er ambts balwots fa'ano? ambts tatswots fa'ano? ambts ikwots fa'ano? er aatr dani yekiye okona taawonat fideliyon k'o'or bonababi tuwok'o, bok'o p'etuwoek'o er eg bætiruwok'o dan bodek'oe tuwok'o wosho geyituwe.

Hanora s'een taawots 101tse tuwr 200lo bborfetso, 201tse tuwr 300lo bborfetso, 301tse tuwr 400lo bborfetso --- er kaide'er niyirniyiron daniyo geyituwe.

### **Ariya:- Nababonat k'o'p'ona (guut'ona)**

<b>Taawona</b>	<b>Fideliyona</b>
A/ 110	ik baletatsa
Bi/ 345	keez bale habe uutsa
Ci/ 504	uutsbale awda
Di/ 932	jeed'ibale shaashe giita
E/ 121	ikbale hiye ika.

### **Ci/ TATSONAT K'OORONA**

Daniruwots dan tookhan k'os'wotsi dan bodek'oe s'iilogeyituwe.

### **Ariya:-**

- ik fideliyets s'een taawona 100oye dashts 100 ayits s'een taawotsnton bodabituwok'o aata (aap'onat k'oop'ona)
- keez fideliyets s'een taawotsi dabeyiruwotsn bad'iyde'e ik fideliyetsotsnten 100li ayiwotts s'eentaawdabonton (jamonton) bokeewitu wok'o aata.
- keez fideliyets s'een taawotsi bomaa k'awntson aap'onat k'op'on (fideliyon) bokeewitu wok'o aata.

### **3.3. 1000 BBORFETSO BEYIRU SEEN TAAWOTS**

#### **SHINE SHUUTSA (4 perediy)**

Dan tookhan k'oswotsi:- daniruwots han danbok' ridere okona:-

- 1000 bborfetso beyiru s'een taawotsi taawi toos'on kiitsituno
- 1000 bbor fetso beyiru s'een taawotsitse shin tsonat shuutstson wottstsotsi keewituno.
- imets giit shine shuuts s'een taawotsitse shuutstso awi bwoto keewituno.
- giit s'een taawotsi “<” “>” nat ‘=’ ciranotsn (milkitanotsn) nokoriyituno.

### **DANIYIRUWO FIINA**

#### **A/ SHINI K'ANA**

Daniyiruwo daniyosh k'aat'ots kindftsere shini naniyere dashi fiinanotsi fiindek'o bigeyituwe.

- Tookan daniyiftsere shini daniruwots s'een taawots shine shuutso k'ot' giitatse bo dantsotsna anda shuuts anar s'iilk'o aatotsi tizrni k'aat'otse keeweyosh k'ande k'ogeyituwe. Maniyer okona tookhanitsi

danoeg b̄eetiruwok'o hanton gonkide'e (deshide'e) f'iintso (daniyo) geyituwe.

## **DAN AAYI K'C" WOTSI**

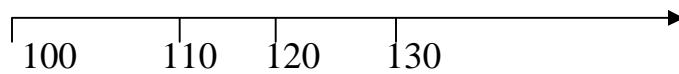
### **K'ANIYA**

- 1000 bborfetso beyiru s'een taawotsi kiitsit taawi toos'a
- otse tuwr gbbor fetsobeyiry s'een taawotsi detsts flesh kardiya.
- '<' '>' nat = c'r ( milkit) detsts flesh kardiya.

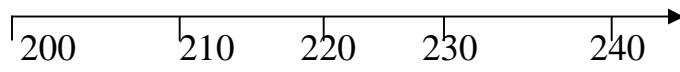
### **Bi/ DANONAT DANIYI AMATSE DAN T'IINT'HINA**

Daniruwots haniyere shin 100 bbor fetso beyiru s'een taawotsi s'iilit keewatse dano bode tstso tsna anda muk'na aatotsi tizr k'eeveyo geyituwe. manatsna taawi toos'o deerni ak'marats kiits rni 100tse tur 100 bbor fetso beyiru s'een taawotsi tatson k'oshir (bodagotse tatstatsi k'osheyo bbe yetuwok'o woshr bokeewituwok'o wosha.

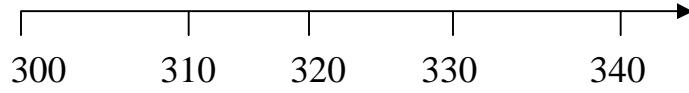
**Ariya:- A/**



**Bi/**



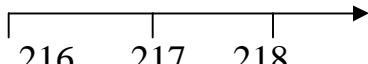
**Ci/**



Hanank'o taawi toos'wotsi ak'marats k'o'or kiits rsni taw too s'wotsatse  
t'oo lets s'een taawotsi bokeewituwok'o wosha.

Manatsnowere terwerotsimaa fiinonat k'aat' fiinon fiinar bo'ere bofiinats/sh  
ariaaniyo imr bodandek'o (boden) enshbode k'etuwo wosho geyituwe.

Keez fideliyets s'een taawots shintsonat shuutstson taawitoos'ode'er  
haniyere dashtsa nk'on kiitsi

**Ariya:-** 

'217' taawi toos'atse k'marats k'o'orni shintso nat shuuts s'een  
taawodaniruwots boke wituwo k'o wosha. Etoni '217'n shinoni 216  
bwoterna beshuutsi s'een taawoni 218 bwotok'o daniyi (nibniyi)

Hank'o werona keez shineshuuts s'een taawotsi niyirniyiron kiitsni  
awuk'o k'alde'e shine shuutson k'op'etuwo (gedetuwo) aatrni  
daniruwots botookon tuur aw shink bwoto? aw shuutsats bwo tok'o bokee  
wituwo wosho geyituwe. Maniyere okona terwerotsi maafiinonat k'aat'  
fiinon bofiinituwok'o woshonat s'iilon geyituwe.

Giit s'een taawotsi niyirniyiron de'er nokoriyo bofalituwok'o taawi  
toos'ats s'een taawotsi ak'marats k'o'orni daniruwots botookon  
bokeewituwok'o wosha. Hanora balwotsi tatswotsnat ikwotsn taawiaylo aatr  
ambts bwoto keewa.

**Ariya:- A/** 

- 319 Etiru s'een taawatsna 3z balwotsna ik tatswotsnat jeediyi ikwotsn fa'ano.
- 329 etiru s'een taawotsitsna keez balwotsna, giit tatswotsnat jeediyi ikwotsn fa'ano.

Eeshna iktatswotsiyere giit tatswots bobo getuwok'o daniyi. Hana ak'marats 319 < 329 er k'o'or (guud'r) kiitsi.



- giit s'een taawots bodets ts bali ayon (taawon) talno wotowa bakona 648 awd tatswotsi bberna (bdeshna) 628 nmo giit tatswotsi bdets ts so k'o keewrni 648to 628ye bbogetuwok'o daniyirni 628<648 er k'o'o (guud')
- Hank'on k'osh k'osh s'een taawotsi niyirniyiron de'er daniruwotssh daniyirni terwerotsi maa fiinonat k'aat' fiinon bofiini tuwok'o woshrni bofiinoshari aniyo imo geyizuwe.

**Dande'ere (T'iwintsuware)**

giit keez fideliyets s'een taawotsi nokoriyosha

- shini bodets ts balwots taawon nokoriya
- balwots taawotaal wotbutsiyala tats wots taawon (ayon) nokoriya
- balwots taawonat tatswonat tatswotstaawon taal wotbutsiyala ikwots taawon (ayon) nokoriya.

## **TATSONAT K'OORONA**

Daniruwots danhan danhan k'os'wotsi bot'iwintsdek'o s'iiloge yituwe.

- 1000 bbarfe tso beyiru s'een taawotsi taawi toos'ats kiitsa
- s'een taawotsshine shuuts s'een taawotsi bokeewi tuwok'o aata.

**Ariya:-** 482 shinonat shuutsi s'een taawo tsi bok'eewish aata.

481 shin/ts s'een taawa.

\* keewets giits'een taawotsitse aw bogfa? aw muk'efa?nat  
talno? etiru aatotsi aata

Ariya:- A/ 526 < 540 Bi/ 321 > 320  
Ci/ 456 = 456

## **K'OT'OK AWDA**

### **4. JI'OMETRIYA (22 perediya)**

**K'OS' jamwotsi** :- Daniruwots k'otanodan bok'riye okona

- boganoke beyiru (datset) keewotsi shaatit jiome tri aro danetuno.
- ji'ometri shanots boaronat bo'atson galituno.
- k'op'ona jindona, tungushona, toos'ona gurkona egbowotok'o keewituno.
- mesmeriyo de'erni jindona, keez nah k'ona awud nalk'on bosererituwok'o (sererituno)
- keezonat awud nal k'ets arotsatsna nalk'o na (nalk'otsna) verteksiyotsna galituno.

### **DaNAAYI K'ACWOTSI K'ANIYA**

- keez nalk'ets k'ac ari modeliya.
- awud nalkets k'ac'caari madeliya.
- guriyek medeliya.
- mesmeriya wokan k'indetsmas'afa.
- k'aw work'at k'inda.
- keezonat awud nalk'ets arotsi kiitsit cartiya ----

### **DANIYI RUWO FIINA:-**

Jiometriya etiruwo daniru wotssh handr bwots tsotsna (haniyere shin bodanawotsna) bogano be de'e rni jiometri orotsi bodane tuwok'o woshrn bo aronat boatsona (bogitsona) daniyosha dambi kee wets dan aayi k'a c'wotsi de'ern shengsh k'ande er t'iino geyituwe.

Hanora k'op'ona, jindona, tungu shona toos'onat k'uk'ronat hanank'o keewotsi keez nalk'o awudnal k'o eget b̄ewotok'o daniyirni (detsiyirni) tookhan shirotsi beyiru wan keewats k'an de'e keeweyosh t'iino geyituwe.

## **4.1 JI'OMETRI AROTSE GALONAT SHUUTS IMA**

### **(5 perediya)**

Danhān k'os'wotsi:- daniruwots tookhan bodan k'riyere okona:-

- ji'ometri arotsi danetuno (galituno)
- ji'ome tri arotsi shuutsituno
- ji'ometri arts arotsi kiitsituno

### **DANIYIRUWO FIINA**

#### **A/ SHINI K'ANA:-**

Daniyiruwo daniyosh k'aat'ots kiind ftsere shini haniyere dashi fiinanotsi fiinde k'o bigeyituwe.

- Tookhan daniftsere shini daniruwotssh keewan handr bwottso tsotsna bogan ganoko datset keewotsi keewur jiome triaro shaatiyo falitwuotsi ak'marats k'o'or bokeewe tuwok'o wok'o wosho geyituwe. Erni tookan shirotsi beyiru keewotsi datshamatse bodants keewotsnton deshide'e t'iintso (keewo) geyituwe.

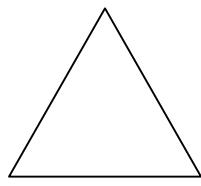
### **DAN AAYI K'AC' WOTSI K'ANIYA**

- keez nalkets modeliya
- awud nal k'ets modeliya
- gurk omodeliya

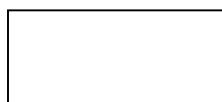
#### **Bi/ DANONAT DANIYI AMATSE SANT'IINT'IINA**

Jiometri arotsi danr boshuutson bokeewitu wok'o woshosha boaro ak'marats kiitso geyituwe hanora jiometri arman boganoke datset koowo tsetse awi (koni) bartsok'o keewurni haniyere dashtsan k'on daniya.

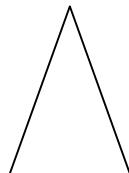
**Ariya:-**



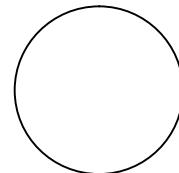
Keez nal k'ets ara.



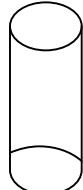
Awud nalk'ets  
ara.



keez nalkets  
ara



gurk ara

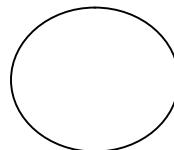
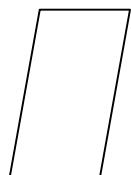
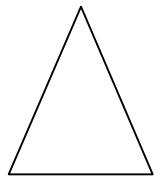


T' aasiara.

Dambi keewets (t'iintsets) aranets noganoke boshaatit keawotsi daniruwots bokeewituwo k'o wosho geyituwe.

**Ariya:-** j'imba, gaawa, burtkaniya sat'ina ni boshapo bokeewituwok'o kup'iyogeyituwe. Hanara b  ar bodants keew iko ak'marats k'o'orni ani k'osh k'oosh arono k'oorni (sererarni) eg bowo to bokeewituwo k'o wosha. Hanora giromantse beyi ruaro ebibar ? k'anomandtso niye? dambtso niye? dosh tsoniye ? s'iilon boaniyituwok'o woshogeyituwe.

**Ariya:-**





Haniyere okona bodani mas'afatse beyiru terweri aatotsi kaat' fiinon bofiinituwok'o woshrn bofiinosh arianiyo imrni bodaf tarats k'o'o bode k'e tuwok'o wosho geyituwe.

## **TATSONAT K'OORONA**

Daniruwots danhan k'os'o danbode k'o s'iilo geyituwe.

**Ariya:-** - ji'ometri aro ak'marats seerarni beshapo  
bokeewituw k'o wosha.  
- k'osh k'osh ji'ometri aretsi ak' marats k'o'o rni (sererarni) arman shaponat békaton bokeewituwok'o aata.

## **4.2. JI'OMETRIYA ETIRU KEEWI S'AP'WOTSI**

### **K'OP'ONAT KAWJINDONA (5 perediya)**

Danhan **k'os'wotsi** :- daniruwots dan han danbo k'riyere okona:-

- mesmeriyo deer kaaw jindo dererituno
- k'op'o fideliyon shuutsituno
- kaaw jindo fideliyon shuutsituno

### **DANIYI RUWO FIINA**

#### **A/ SHINI K'ANA :-**

Daniyiruwo k'oat'ots kiindftsere shini haniyere dashi fiinanotsi k'alde k'o (fiindek'o) bígeyituwe.

- Tookhaniyere shin daniruwots ji'ometri aro galonat shuutsimon (shuutsiyon) ani bo'ar sereron (k'op'on) bodantsotsna hanatse' tuwrni keeweyosh k'ande'e t'iino geyituwe. Manatsna k'op'onat

kaawjindoeg b  etiruwok'ona boganoke daatset keewotsnton jagide'e  
(gonkidee) daniyo sh k'ande k'o geyituwe.

## DAN AAYI K'AC'WOTSI K'ANIYA

- mesmeriya
- daftariweyin mas'afi k'inda.
- k'aawets (k'odets) work'ati kinda.

## Bi/ DANONAT DANIYI AMATSE DAN T'IINT'IINA

Jiometri etiru keewi s'ap' wotts k'op'o' daniruwotssh handr bwottsotsna k'op'a etiruwona ' ak'ma rats haniyere dashtsank'on kiitsa.

Ariya:- - ' ' k'op'a etaetefo  
- k'op' a er shuutyefe (s'egefe)

K'op' shaatit keewotsi boganoke datsetkee wotsitse bokeewituwok'o daniruwotsi aata.

### Ariya:-

A/ irsasi c'uusha

Bi/ ankasi c'uusha

Ci/ mesamari c'uusha

Di/ kobi c'uusha

Dambi keewets ariyanots c'uusho kiitsr k'op'a etiruwo eg bwotok'o bodaniye okona terwerotsi maa fiinonat k'aat' fiinon bofiinituwok'owosha.

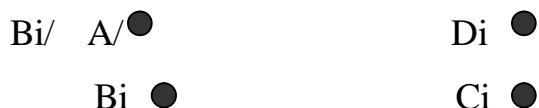
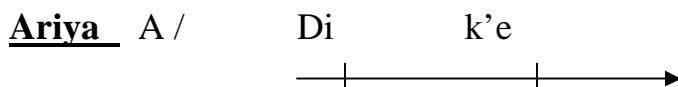
Ji'ometriyo etiru keewi s'ap' ar wottsotsitse gitloni kaaw jinda. Hani giit k'op'wotsats sererarni woyin k'indets keewotsi (daftaro, masafo ---) de'e rni kap'ar fiino faletuwe.

### Ariya:-



- \* hana kaawjind ABi erni shuutsyefo .
- \* “ ←→ hani kaaw jindi taawi c’ira (milkita).
- \* ←→ er s’eego (shuutsiyo) faletuwe.

Daniruwots ik wore k’etats giit k’op’wotsi bo gedetuwo’o woshrni giit k’op’manutsi mesmeriyon deshiyir (gonkir) kaaw jindo fino (datso bofalu) wok’o a’ayiyo geyituwe.

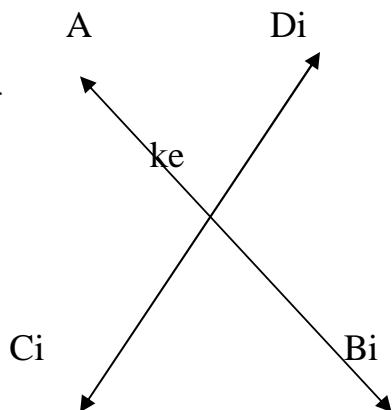


1. k’op’o Ayi Biton goonkiyor
2. k’op’ Ayi ‘Diton goonkiyor
3. k’op’ ‘Biyi Citon goonkiyor
4. k’op’ Ci ‘Diton goonkiyor

Er aayirni bofiints jindwots ambts bowoto aata. Terwerotsi maafiinonat k’aat’ fiinon bofiinit uwok’o woshrni bofiinoshio ari aaniyo imo geyituwe

Haniyer anarni giit kaaw jindwots bok’ut’eyor etiruwo eg bwotok’o haniyer dashi t’iintse tsank’on kiitsa.

### Ariya:-



Cit jindwotsi akmarats sererarni bok'ut'ewokona k'e er kitsa. Hanora giit jindwotsi k'ut'k kaaw jin bowoto keewosha k'osh k'osh arotsi hank'o weeron kaaw jindwotsi k'ut'iyirni bok'ut'eyoki beyokuna (k'op'o) daniruwots bokeewituwok'o wosho geyituwe.

Erni botokon k'ut'k kaw jindwotsi bodafta rats fiinar batewrerituwoko wosho geyituwe. Han s'uuwatsna terwerotsi bwottsok'on maaflinonat k'aat' fiinon bofiinituwok'o ima.

### **TATSONAT K'OORONA**

Daniruwots dan han eg boshiyosh (etosh) bgeyiruwo k'o dan bodek'o (danobodetso) geyituwe.

#### **Ariya:-**

- Giit k'op' wotsats kaaw jindo bosereritu wok'o aatrni hanora mesmeriyo woyin bodoftari k'indo bodek'e tuwok'o wosha.bo fiinono s'iilr arama.
- Ak' marats woyin bodaftarats k'op'o bokii tsituuwok'o aata.

### **4.3. K'OP'ONA KAAW JINDONA, KEEP'E KKAAW JIND JAGEYONATNI KEEZNA LK'ETSONAT AWD NALK'ETS**

#### **AROTSNA (7 perediya)**

**Danhan k'os'wotsi:-** daniruwots danhan boishtsok'ona:-

- mesmeriyo deer k'ut'e kaaw jind giit otsi sererituno (kiitsituno)
- keez k'ut'k kaaw jindwotsi sererar kee nalk'I aro fiinituno

- awd k'ut'k kaaw jindwotsi sererar awd k'ut'k kaaw jindwotsi sererar awd balk'I aro fiinituno
- k'osh arets orots nalk'o goonkiyirni bogonkewoko (vertersiya) danetuno
- keeznalk'ezs aro (atso) danetuno (galituno)
- awdnalk'etts ari maa'a galituno

## **DANIYIRUWO FIINA**

### **A/ SHIN K'ANA**

Daniyiruwo k'aatots daniyosh b̄é kindftsere shini haniyere dashi keewanotsi fiindek'o bigeyituuc

- Tookhaniyer shindaniru wots k'op'a etiruwonat kaaw jinda etiruwon bodan tsotsna shuuts anar s'iilesh bshengetu wokowa daniruwets k'op'o nat kaw jindaer t'iino geyituwe. Manatsnowere k'op'onat kaaw jindon bodetssts jagewo daniyodha boganoke dantsetkeewotsnton deshi deer (gonkideer) t'iintso geyituwe.

### **DAN AAYI K'A C'WOTSI K'ANIYA**

- mesmeriya
- keez nalk'etsonat awd nalketson kiitst cartiya.

### **Bi/ DANONAT DANIYI AMATSE DANT' IIN T'IINA**

Haniyere shin daniruwots k'oponat kaaw jindan bodantso tsna anda shuuts anar s'iilk'o aatotsi k'anide'e aatr bogawdek'etuwok'o wosho geyituwe maniyere okon k'op'wotsna, kaaw jinwotsna .Eena wkaawjindona, keeznalk'e tsona, awd nalk'e tsarotsi niyirniyiron t'iintsetso k'on kiitso geyituwe.

#### **4.3.1. K'OP'ONA, KAWJ NDONAT KEEP'ETS KAW**

#### **JINDWOTS JAGEYA**

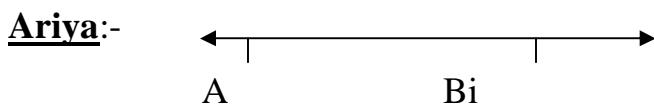
## A/ K'OP''A

Tookhanitse k'op'I c'ir (mi) kit) ged arts keewotsi daniruwots bokeewituwok'o (bokeewish) aata. Daniruwots aaniyo k'ewudeerni it sasiya kobeya mesmeri c'uusha hanannari sha shc'uushets keewotsi worek'etats boc'uushon gerrni k'op'i " c'ir (milkit) bwotok'o daniya daniruwotsi tizrni ak'marats cok'iyon k'op'o bokiitsituwok'o wosha. k'op'o eg bwotok'o sheng sa daniyirni k'op'o egn bshuutsiyetuwok'o aatrni fideliyon shuutsiye tuwok'o daniya.

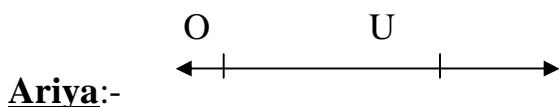
Ayi k'o p'wotsi ak'marats gerrni boshuutson bogalituwok'o wosho  
geyituwe. Haniyere okena terwerotsi bofiinituwok'o wosha.

Bi/ KAW JINDA

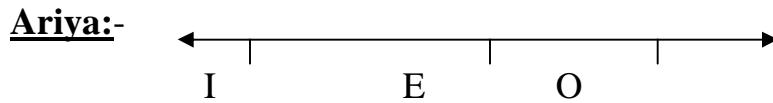
Dani k'aat' 4.2 tse daniruwots kaaw j'indwotsi bodan tsotsna shuuts anar s'iilk'o wosh de'e tuwo geyituwe hanora kaaw jinda eto eg et bwotok'o daniruwotsi aatrni kaatsdek' jargek b  ed' genzo ind faleraw (b  ed'itwuoko daneraw) jiome tri ar b   wotok'o daniyi (keewi) manatsna mesmeriyo de'erni ak' marats kaaw jindo fiinar bodane tuwok'o woshi.



Hanatse anorni giit k'o p'wotsi deshiyirni (gonkiyirn) kaaw jindo fiino fale tuwo k'onat giit k'op' wotsi s'ee gets fideliyotsn kaaw jindman s'eego faletuwok'o haniyered deshtsank'on daniya.



Jind OU er shuutsiyetu wok'o (s'eege tuwok'o) daniya woyin OUetiru taawi c'ro deer kiitsa. Jindwotsi fiinerni "béatsa" etiruwo natni "bdagotsa" etiruwon haniyere dashtsan k'on daniya.



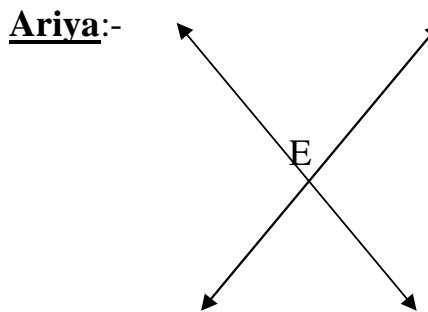
\* K'op' ‘E’ k’op’ ‘I’ nat ‘O’ n dagotsa bdatset

\* k’op’ ‘E’ kaaw jindatsna bdatset (bfa’o)

Haniyere okona daniruwotsi tizrni git k’op’wo tsatse beshit jindwotsi fiinar bo shuutso boimetwok’o woshrni k’osh hannari kaaw jind wotsi bodaftarats fiinar bodanetuwo k’o wosha. Hanank’o aatotsi maa fiinonat k’aat’ fiinon bofiinitu wok’o wosha.

## Ci/ K’UT”E KAAWIINDA

K’ut’ek’ kaaw jinda eto eg bwoto k’o daniruwotsi aatr tuwo (daniyo) faletuve. Giit kaaw jindwotsi ak’ maratse bok’ut’e tuwok’o woshr fiinorni giit jindwotsi k’ut’e jind bowoto daniya.



Giit jindwotsi bok’ut’eyiru beyokuna k’op’ ‘E’ woshr daniyirni k’osh k’osh k’ut’eyiru jindwotsi bodaftara ts fiinarni bok’ute’ yoki k’op’una shuutsiyir

danrni terweratsi aatotsi maa fiinonat k'aat' fiinan bofii nituwok'o wosho  
geytuwe.

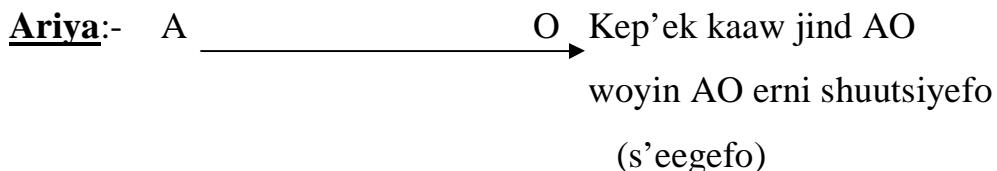
## Di/ KEP'EK KAAW JINDA

Masmeriyo de'erni kep'ek kaaw j'indo haniyere dashtsan k'on ak'marats  
kiitsa.



Ik kep'ek kaaw jindo ambts c'uush k'op'wotsi dets fa'err aatr daniyirni hanora kep'ek kaaw jinda eto eg b̄ewotok'o (b̄etuwokonat b̄e s'uuwokon danek bwotok'o) boganoke datset keewotsnton deshidee daniyo geyituwe.

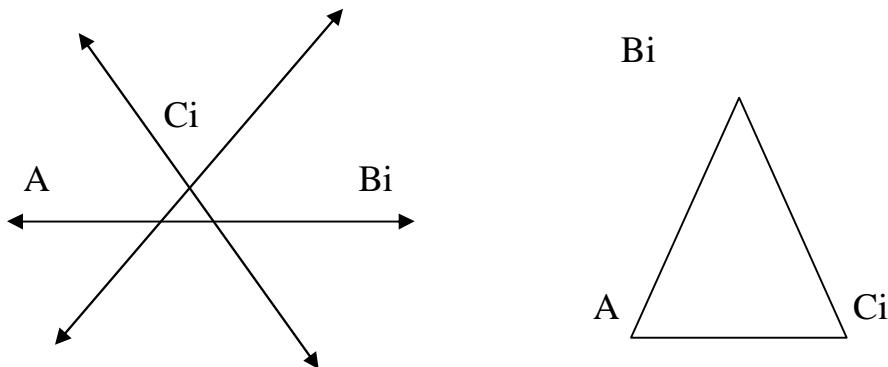
Daniruwotsi tizrni mesmeriyo woyinmo bodaftaronat bomas'afi kindo  
de'er kep'ek kaaw jindo fiinar bokiitsituwok'o wosheyiyere okona  
bodaftarats ani bofiini tuwok'o wosha, Kep'ek kaaw jindwots c'uush k'op'  
wotsi bogedetuwo k'o keewi. kep'ek kaaw jind taawi milkito (c'iro) “  
\_\_\_\_\_” b̄ewotok'o ariyo imr kiitsi



Daniruwots k'ot'ok katse bodants yotsi (danets) eed' indi k'ac' wotsats  
tuwrni kep'ek kaaw jindona mesmeriyon tatso (indo) faletuwo k'o keewi  
k'awuna, genza woyinmo taala bwotit etiruwotsi de'erni kep'k gitonat giite  
bog kaaw jind wots bonokoriyituwok'o wosho geyituwe. Maniyere okona  
terweri aato tsimaafiionat k'aat'i fiinon bofinituwok'o wosha.

#### 4.3.2. KEEZ NALK'ONAT AWD NALK'ETSE AROTSE

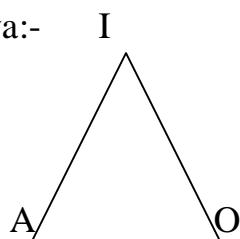
Keez nalk'ets kardiyotsi kiiysrni ambts nalk bodetso k'o (bodetstsok'o) nat boshuutsono koni etewok'o aatrni keez nalk'etsi eta etefoer keewa. keez kaaw jindwotsi haniyere dashtsank'o serera.



Kep'ek kaaw jindwotsi book'ind k'indo (c'uushc'uusho) deshiyirni (gonkiyirni) keez nalk'e ts aro ak' marats k'o'or kiitsa.

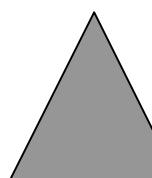
Manatsna keez nalk'etso awuk'o shuutsiyetuwo k'o aatrni boaaniyo k'e bdek'eyiyer okana haniyere dashtsank'o shuutsiyir (shuutsoimr) kiitsa.

Ariya:-



- keez nalk'ets AOI woyin keez nalk'ets  
OAI woyinmo keez nalkets IOA err  
s'eego (shuutsiyo) faletuwe

Haniyere okona aran shatit (arit) keewo boga noke datset k'ac'wotsitse (keewotsitse) bos'eege ruwok'o (bo keewituwok'o) aato geyituwe. Manatse anarni keez nalk' maac'a etiru keewona shengsh haniyere dashtsank'o kiitsa.



Fuutetsiaanoni keez nalkets ari maac'a  
eta etefo

Hank'ona k'osh k'osh arotsi (enonat muk'on ekdeerni) bomaac'o ak' marats akiyirni (fuurni) daniruwo ts bodane tuwok'o woshrni terweriaatotsi bofiinitu wok'o wosho geyituwe.

Keez nalk'etso daniyets weerona awud nalk'etsono bodani mas'afatse t'iintsets weeron daniyir aniter weri aatotsi bofiinituwok'o wosho geyituwe.

Awudnalk'etsonat keez nalk'etson bogon kewoki k'op'o (verteksiya) kiitsr bodanetu wok'o woshogeyituwe.

### **TATSONAT K'OORONA**

Daniruwots danhan shengsh bo danonat dets bode k'ts dani k'os'wotsidanosha haniyere dashi t'iin tsetsan k'on s'iilo geyituwe.

- Giit k'ut'eyiru kaaw jindwotsi botere situwok'o aatrni bofiino s'iila.
- Mesmeriyon keez nalk'etsotsnat awud nalk'etsarotsi bosererituwo k'o (bofiinituwok'o) aatrni bofiinono s'iila.
- Arots nalk'onat bogonkewoki k'op'on (vertek siya) bokiitsi tuwok'o aata.
- keez nalk'etsonat awud nalk'ets arots maac'o bogalitu wok'o (bodanetu wok'o) aata.

### **TOOS'A TUNGUSH GURKONA (5 perediya)**

Danhan k'os'wotsi:- daniruwots dan han boishirere okona

- Toos'a eto egetb wotok'o keewituno
- ❖ Tungusha eto eg et bwotok'o keewituno
- ❖ Gurka eto eget bwotok'o keewituno

### **DANIYIRUWO FIINA**

#### **A/ SHINI K'ANA**

Daniyiruwo k'aat'ots daniyosh kindftsere shinihaniye dashi keewanotsi (fiinanotsi) k'aldek'o bigeyituwe.

- Tookhan daniyiftsere shini toos'ona, tungushonat, gurka etiruwots egbowotok'o daniruwots ganoke datset keewotsnton gonkide'er sheng sh k'ande'er t'iino geyituwe.

## **DAN AAYI K'AC'WOTSI K'ANIYA**

- mesmeriyadd

### **Bi/ DANONAT DANIYI AMATSE DAN T'IIN T'IINA**

Dan hanitsna daniruwets galganoke daatset keewo tsetse toos'ona, tungushonat gurkan shaatituwotside'e rni daniyo geyituwe.

## **TOOS'A**

Toos' daniyosha aaw shaanona, kishi batri shanon de'erni danoyo faletuwe. Ariyosha aaw shano de'e rni bétuwo konat bébodetokon (bés'uwitwokon) daniruwotsi aatrni bétuwoka bako b bodetoko (bés'uwitoko) aliye (danatsone) er keewurni toos'o nuwe hank'owiye er dani (keewi) toos'iaro daniyosha shini kaaw jindo sererarni (fiinarni) bin (kaawjindo) shuuts aanar s'iila. kaaw jindatse beyiru k'op' wotsitse iko deer shuutsiya. Erni k'o'p'man kaawjindman gitosh békayiyituwo k'o aatrni haniyere dashtsan k'on daniya.

**Ariya:-**



K'op' "O" kaaw jin 'AI' na kayira



Bogitanotsi toos'no (toos'a etaetefo) Etoni toos QA woyin QA erni s'eegefo  
“ ” hani taawi toos'i c'ira (milkita) toos' QI woyin QI erni s'eegefo.

Toos'oni ik s'uwi (kindi) k'op'o detsfe ikweronmo s'ubo (kindo) deshatse err daniru wotssh keew.

Toos'ona haniyere dashtsan k'on shuutsi yo (shuutsimo) faletuwok'o daniyi. Ariyosha ak' marats toos'o sererarni ik k'osh k'op'o toos'ma natse de'erni shuutsiya.

**Ariya:-** A → Q

Shini suushu 'A' er shuutsiya Erni ik k'op'o de'erni 'Q' er shuutsiyirni toos' AQ woyinmo AQ er s'ee getuwok'o (shuutsiyetuwo) ak' marats fiinar daniyi rni terweri aatotsi bofiinituwok'o wosho geyituwe.

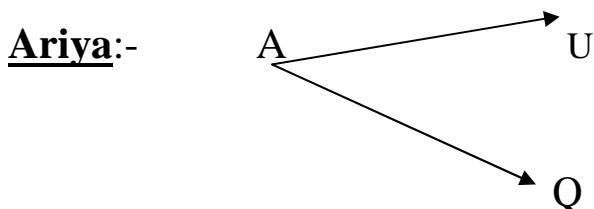
### **TUNGUSHA**

Daniruwots bogonke datset tok'eewotsitse tungush shap dets ts keewotsi bokeewituwo aata.

**Ariya:-** A/ mak'asi shapa Ci/ kishi jaabidaga

Bi/ kompasiya Di/ kishi aari k'aawa

Dambi keewets ariyatsi kaat'otse kiitsrni tungusha etiruwo daniruwots shengsh danbodek'o tuwok'o wosha haniyere ok ona ikatse tuwito (ik'k'op' detsts) toos' wotsi ak' marats sererarni (k'oorni) haniyere dash tsank'on tungush aro kiitso (daniyo) geyituwe.



Tungusho fiinefo giit jindwotsi k'ut'iyirni woyinmo bo c'uush cuushon gonkiyirni erni bogonke wokni (bodesheyoku) k'op'o verteksiya' etefok'o daniyi tungusharona shuutsi (shuutso im) Etoni tungush QAU woyinmo UAQ er s'eegefok'o keewurni terweri aatotsi bofiini tuwok'o wosha.

## **GURKA**

Santibona gewona s'awi shanonat k'oshk'osh hanan k'o kee wets gurk shapo bo detststsok'o tiwintsiya Giit rsasiyotsi s'aaron tifdeerni ik rsasiyo c'uushona gurki taalots k'ons'derni k'r sagiyan bc'uushon guuriyir gurko fine tuwok'o kiitsrni hank'on k'osh k'osh taaleraw gerkotsi bofini tuwok'o woshi. Haniyere okona kampasiyo de'er gerkotsi fiinarni botaalokibeyoko keton boda netuwok'o (bodatsituwok'o daniyirni gurki dagitaalona fideliyon boshuutsituwok'o wosh rni bosha ka'ts wots dagitalo awuk'o datses tuwok'o kiitsrni terwerotsi bofiinituwok'o wo sho geyituwe.

## **TATSONAT K'OORONA**

Daniruwotsi dan han danbodek'tsok'on haniyere dashtson k'on s'iilo fale tuwe.

### **Ariya:-**

- Toos'a eto eg et bwotok'o bokeewitu wok'o aata (aap'ona).
- Tungusha etoeget bwotok'o bokeewi tuwok'o aata.
- Gurka eto eg bwotok'o bokeewish aata.
- Toos'a, tungusha gurka etiruwotsi bokeewituwok'o wosha.

## AAP'I K'OOLA GLOSSERIES /መናቶ ቅለት/

ብ አ ሽ የ የ ሌ መ ው ቁ ሰ (terms used in (1))	የ ቁ ሌ ት ሲ ጥ የ ም በ አ ማ ሊ ቃ /እ ጥ የ ሌ ቁ ሰ ቃ	የ መ ሽ ጥ ት ብ ት በ ቃ የ ት /ት አ ደ ካ ት : ጥ ይ መ አ መ ሊ	የ ቁ ሌ ት ም የ ም እ ሌ ት የ የ ድ
Ak'mara	ጥ ቁ ሌ ሌ ሌ የ /block board/	ገ ይ 4 መ አ መ ሊ	
Aran (ara)	ስ ዕ ሌ /Picture)	ገ ይ 78 መ አ መ ሊ	
Arama (ariyi)	ማ ሁ ሌ ም /correct/	1	
Bad'ts k'oswotsi	ዘ ቁ ሌ ሌ የ ሌ ሌ /specific objectives)	ገ ይ 111 መ አ መ ሊ	
Bo'atse'atse yo	ዶ ሌ ሌ በ ሌ ሌ የ ው	4	
Bana	ጋ ሌ ሌ /quotient/	ገ ይ 72 መ አ መ ሊ	Paragraph 1
Bosihyetu wok'o	እ ጥ የ ው የ የ /discussing each other/	ገ ይ 78 par 1	
B kaata (kaata)	እ ቁ ሌ ሌ /direction/	መ አ መ ሊ 4	
Bkawa	ታ ደ የ /side to side/	ገ ይ : 73 para 2	
Cartiya	ቃ ሌ ት /chart/	መ አ መ ሊ 1	
Dabeyiruwotsi	ተ የ ማ ሌ የ የ የ /sdenda/	ገ ይ 5 para 1	
Guupa	ማ ቁ ሌ ሌ /summarizing/	መ አ መ ሊ 5	
Ka'iyotsi	ም ደ የ /group/	ገ ይ 111 para 3	
Kap'a		መ አ መ ሊ 4	
		ገ ይ 27 para 3	
		መ አ መ ሊ 1	
		ገ ይ 62 para 1	

Kardiyotsi Kep'a	<p>መ ስ መ ስ ከ ስ ዥ ቅ /cords/ ቁ ጽ ፍ /bracket/</p>	<p>መ ስ መ ስ 2 ገ ዕ 1 para 1 መ ስ መ ስ 14 ገ ዕ 10 9 para 3 መ ስ መ ስ 4 ገ ዕ 10 7 para 2 መ ስ መ ስ 1 ገ ዕ 53 para 2 መ ስ መ ስ 3</p>	
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## AAP'I K'ooLA /መ ዓ ዝ ቅ ስ / GLOSSeries

በ አ ሪ ሰ ሱ ሲ ስ የ የ ሰ ሱ መ ስ ሰ (terms used in (1))	የ ቁ ሰ ሱ ሰ ሰ ሰ ም በ አ መ ስ ቅ / አ ጽ የ ሰ ሰ ቅ	የ መ ስ ጽ ቅ ሰ ሰ ቅ ሰ ሰ ቅ : ጽ ዕ ዓ መ ስ መ ስ	የ ቁ ሰ ሰ ሰ መ ስ ቅ አ አ ቁ ሰ የ ቅ
Kompiteriya	ከ የ ቁ ሰ ሰ ሰ /compiter/	ገ ዕ 122	ከ አ መ ስ ቅ /English/ የ ቁ ሰ ሰ ሰ
Kishitera	መ የ ቅ	ገ ዕ 29 payo 5 መ ስ መ ስ 2	
Mak'asiyi shapon	የ መ ቁ ሰ	ገ ዕ 122 /A/	
Niyir niyira	ቁ ሰ ሰ	ገ ዕ 5 paro1 መ ስ መ ስ 4	
Serera	ተ ሰ ሰ ቁ ሰ	ገ ዕ : 103 paro 1 eHeI 9	አ አ ቁ ሰ ሰ ሰ የ የ ሰ ሰ ሰ
S'ap'a	አ ሰ /draw/	ገ ዕ : 107 par 3	በ ቁ ሰ ሰ ሰ የ የ ሰ ሰ ሰ
S'awi shaana	መ የ ቁ ሰ /base/	eHeI 4 ገ ዕ 122 par 4	በ ቁ ሰ የ የ ሰ በ መ የ ሰ የ የ ሰ ሰ
	ዘ ሰ	መ ስ መ ስ 1	የ ቁ ሰ ሰ የ የ ሰ ሰ
	ው የ ቅ		የ የ ሰ ሰ

