

XISAAB

FASALKA KOWAAD

I

TILMAAME BARE



WASAARADDA WAXBARASHADA IYO BARBAARINTA
XAFIISKA MANAAHIJTA

Buuggan lama daabacan karo lamana guurin karo iyadoo
aan Wasaaradda Waxbarashada iyo Barbaarinta laga helin ogalaasho.

DAABACAADDII LABAAD

Waxa lagu daabacay Madbacadda Qaranka.

Xamar — 1975

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H O R D H A C

Buuggan waxa loogu tala galay inuu caawiyo macallinka dugsiga hoose xisaabta ka dhigaya oo uu la isticmaalo buugga 1aad ee ardayda. Waxuuna ka kooban yahay qayb casharro ah, barasho kaaliyayaal iyo ciyaaro.

1. QAYBTA CASHARRADA AH

Qaybtan baa u badan waana afar cutub. Casharrada iyo cutubyada qaarkoodna waxa ka horreeya tilmaan guud oo ay ku kooban yihiin fikradaha lagu dhigan doono casharkaa ama cutu bkaa. Cashar waliba wuxuu u sii qaybsan yahay sida hoos ku taal:

- b) Ujeeddada oo sheegaysa waxa la rabo in ardadu ka barato casharkaas.
- t) Qalabka, oo mararna lagu magacaabay alaabta loo baahan yahay, waxa lagu sheegay qalabka la isyiri waxa loogu baahan yahay in casharkaa lagu hirgasho. Iyadoo looga jeedo fududayn iyo koobnaan ayaan inta badan aan halkan lagu sheegin qalabka had iyo jeer laga helayo fassalka oo ay ka mid yihiin saburadda, qalimo, buugaag iwm. Markaa si uu u hubiyo macallinku in uu diyaar yahay qalabka uu u baahan yahay, waa inuu sii akhriyaa casharka oo dhan, kalana soo baxaa qalabka locbaahan yahay, dabadeedna ogaadaa meesha uu ugu haagaagayo. Qalabka aan markaa degaankaa laga heleyn waa in lagu beddelaa mid la heli karo.
- j) La-talis bare oo saraya sida uu macallinku dersika u dhigayo. Waxana ka mid ah sida uu macallinku deriska u bilaabayo, sida buugga ardayga loo isticmaalo, masalooyin dheeraad ah, iwm. Hase yeeshi la-taliskan ma aha ka had iyo jeer ugu siican. Sidaa darteed yaan lagu koobbuuggan keliya ee ha la isticmaalo markii door la bido habab kale oo wax loo dhigo.

Waqtii u go'an oo lagu taliyey inuu casharku qaato ma jiro. Sida ay casharradu u qoran yihiinna, cashar waliba hal xiso ama ka badan uu qaadanayo. Qaar baa laga yaabaa inay laba xiso qaataan qaarna saddex xisadood. Waxay tahay markaa in.macallinku dersi waliba waqtigii u laaqi ah ku qaato.

2. BARASHO KAALIYAYAAL

Xisaabta inteeda badani waa fikrado aan la taaban karin. Haddiise si hagaagsan loo isticmaalo barasho kaaliyayaasha waxa fikradaha loo dhigi karaa si la taaban karo oo micnahoodana lagu caddayn karo. Markaa barasho kaaliyayaashu waxay qiime weyn ugu fadhiyaan fahamka fikradaha iyo astaamaha.

Barasho kaaliyayaashu waa qalab lagama maarmaan ah oo naaxiya xiisana u yeela wax dhigista; waxayna gargaaraan feejignaanta, isfahamkana way suuro geliyaan. Waxay markaa waxbarashada ka dhigaan mid hufan oo hirgasha.

Iyadoo wuxtarka kaaliyayaalka maskaxda lagu hayo ayaa buugga xaggiisa dambe lagu sifeeyey sida loo sameeyo iyo sida loo isticmaalo qalabka barasho kaaliyayaalka ah ee la filayo inuu u baahan doono macallinku. Waxa markaa macallinka lagulla talinayaa inuu aad u sii akhriyo barasho kaaliyayaasha oo dhan oo uu sameeyo kuwa uu ugu baahan yahay cutubka ugu ho rreeya dabeedna uu sameeyo kaaliyayaasha kale markii uu waqtii u heloba si uu u dhammeeyo samayska kaaliyayaasha intaan baahidoodu iman.

3. CIYAARO

Haddii ay xiiso leedahay sida wax loo baranayaa waxbarasho dhab ah ayaa suurto geleysa. Wawa la ogyahay in carruurtu ay ciyaarta aad wax ugu barato. Ciyaaruhu waxay kaloo ardada ku dhaliyaan «waxqabasho» oo ah sida ugu fiican ee wax lagu fahmi karo. Sidaa darteed waa in la isticmaala ciyaaraha kordhinaya fikradaha xisaabta.

Isla markaa waa in la hubiyaa in ciyaaruhu ay wax ku kordhiyaan waxbarashada ee aanay waxba ka dhimayn. Ciyaaruhu waa in ay ka mid noqdaan habka wax loo baranayo. Si ay taa u fuliyaanna waa in ay la xiriiraan waayo-aragnimada iyo degaanka ardada waana inaan loogu tala gelin jarayn keliya ee waa in ay xiiso u yeeshaan ardada.

Buuggan waxa lagu sifeeyey ciyaaro loogu tala galay inay ardada jareeyaan, fahamka fikradaha xisaabatana caawiyaan. Waxa kale oo ciyaaraha loo qaadan karaa wax lagu mashquiliyo ardaada had iyo jeer ka dheereysa kuwa kale. Haddii la rabo ciyaar ahaan keli ah ayaa loo qaadan karaa, waqtii kastana waa la isticmaali karaa. Lamana rajeynayo in la isku koobo ci-

yaaraha halkan lagu sifeeyey oo keliya ama in khasab loo wada isticmaalo ciyaaraha oo dhan. Ujeeddadu waxa weeye in barashada xisaabta laga dhigo mid xiiso leh. Sidaa darteed waa in la helaa ciyaaraha ay ardadu aad u jecleystaan oo in badan lagu soo celceliyaa ciyaaraha.

Buuggan waxa intiisa badan qoray iskuna soo dubbariday Cabdiraxmaan X. Cabdulle, Axmed Siciid Deria iyo Maxamed Cabdille Biriir. Waxa iyana wax ka qoray Axmed Geedi, Cabi Haybe Cilmi iyo Xasan Daahir Obsiye. Dhammaantood way mahadsan yihiin.

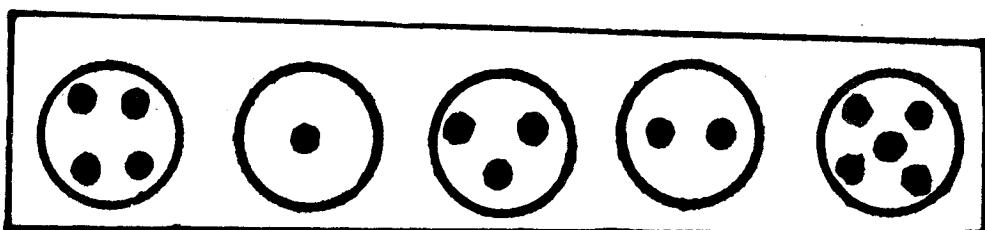
Waxa iyana mahad gaar ah leh dhammaanba dadka kale ee suurageliyey soosaaridda buuggan oo ay ka mid yihiin ka-raaniyaashii garaacay, Cumar Geelle oo sawirada u sameeyey iyo Madbacadda Qaranka oo suuragelisay in uu buuggani dhaqso u soo baxo.

Maamulaha Xafiiska Manaahijta
Bashiir Faarax Kaahiye.

Cutubka Koowaad
KOR KA BARASHADA TIRADA
Tilmaan Guud

1) Tirada marka uu ardaygu kor ka baranayo siyaaba-ha soo socda waa inuu barahu fiiro gaar ah u yeeshaa.

- a) Kor ka qaybid, taas oo uu ardaygu ku dhawaa-qayo tirooyinka sida ay isugu xigaan isagoon macnahooda qiime weyn siinay.
- b) Tirin oo uu ardaygu baranayo sida uu u kaso tirada kooxo kala duwan.
- c) Tilmaamid uu ardaygu t i l m a a m o kooxo 3, 4, 5, . . . tiradoodu tahay. Taasi waa inay dhashaa ardayga oo si dhakhso ah uga jawaabi kara su'aalaha «kooxdee tiradeedu 5 tahay?»
- d) Ardayga oo alaaboo ku barta tirada, jawaab su-gan si deg-deg ah u bixin kara marka la yiraahdo mataalan «li dhiib 4 kubbadoo»
- e) Isgarabdhig laga rabo ardaygu inuu ka jawaaboo su'aashan oo kale, «Immisa ayey kubbada-ha madoobi dheer yihiin kuwa cascasa.»
- f) Kooxayn alaaboo oo ah inay ardaydu ilbidhiq ku sheegto tirada kooxaha :



Layli ahaan waxaad isticmaashaa warqado yaryar oy dhibco ku qoran yihiin.

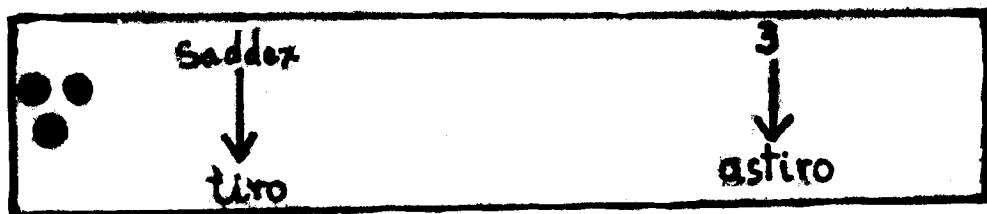
2) Ka dhaadhici ardayda in tira kasta oo idili ka adeegto laba macne; horsiimo iyo qiime. Horsanaanta tiro waxyay sheegaysaa kaalinta ama halka tiradaasi kaga jirto tirooyin kaloo la xiriira. Bilmatal, tirada 4 waa ta afraad ee susunka, 1, 2, 3, 4, 5. Had iyo jeer 3 bay ka dambaysaa, 5 way ka horraysaa. Qiimaha tiro waa marka tiradaasi ka jawaabayso weydiinta ah «Waa intee ? Ama waa immisa ?» Bilmatal; immisa qalin baad leedahay ? Waxaan leeyahay 5 qalin.

B. Ardaygu wuu da' yar yahay, sidaa darteed marka tirada la barayo waa lagama maarmaan in tirada ardayga lagu baro :

- (1) Alaabo deegaankiisa uu ku arko.
- (2) Alaabo uu jecel yahay.
- (3) Alaabo uu guriga ku isticmaalo.
- (4) Alaabo dalkeenna lagu sameeyo sida :
 - (b) Qasacadaha Hilibka.
 - (t) Qasacadaha Kalluunka;
 - (j) Kiishashka Inkaas iwm.

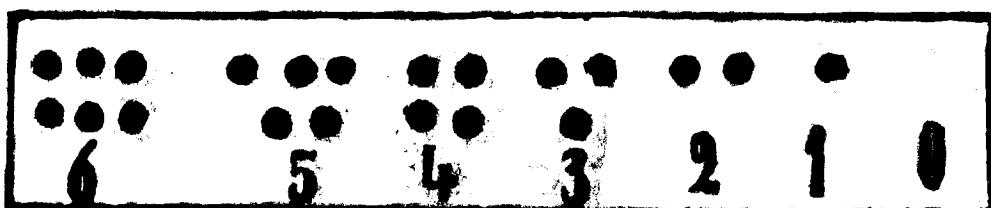
T. Tirada barashadeeda ujeeddada laga rabo inuu ardaygu ka gaaro waa :

- (1) Inuu astirooyinka barto;
- (2) Inuu sansaanta qormadooda isha ka barto, iyadoo had iyo jeer uu baruhu isu raacinayo tiro walba iyo astiradeeda;



- (3) Inuu xirmaynta iyo Rugaha koowaadka, tobnaadka iyo boqolaadka barto;
- (4) Alaabo kasta xaddigeedu intuu yahay inuu tilmaami karo.
- J. Barashada tirada waxaa ardayga sawirro iyo alaaboojin loogu barayaa si uu u barto saldhigga xisaabta una yeesho kasmo xisaabeed oo u suuragelin karta inuu garto fikradaha xisaabtu ay ku dhisan tahay.
- X. Ardayga lix jirka ah tiro laguma bari karo orod iyo hadal keliya, marna tirada ma wada baran karo. Sidaa awgeed tiro barashada waa in sida hoos ku taal loogu kala qaybiyaa. Hase yeesh ee waa inay xiriir isku xira yeeshaan oo aan midna meel ku qoqobnaan.
- b) 1, 2, 3
 t) 4, 5, 6
 j) 0
 x) 7, 8, 9

Kh) Eberka barashadiisu waa inay timaado kadib markuu ardaygu barto 1, 2, 3, 4, 5, 6, sida loogu bilaabayaa-na waa dib u tiris :

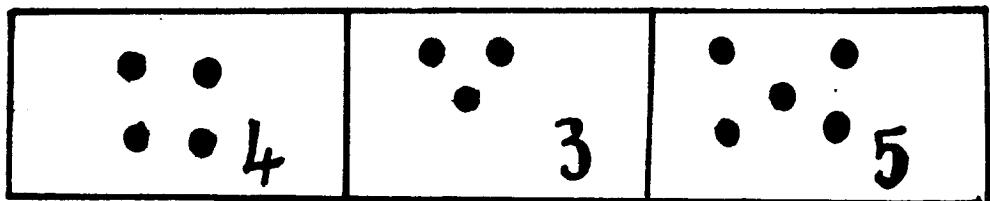


Taasi ayaa laylisyo badan lagu siinayaar ardayga. Markuu baruhu hubiyo inay ardaydu kastay ayuu kadibna u gudbayaa erayada : Immisa ?, kee yar ?, kee badan ? ka yar, ka badan, isle'eg.

Erayadaas marka u horraysa ee loo dhigayo ardayga la tusimaayo summadda ereyadaas u taagan. Ha ku koobnaato alaaboo ama sawiro xaddigooda lays garab dhigayo.

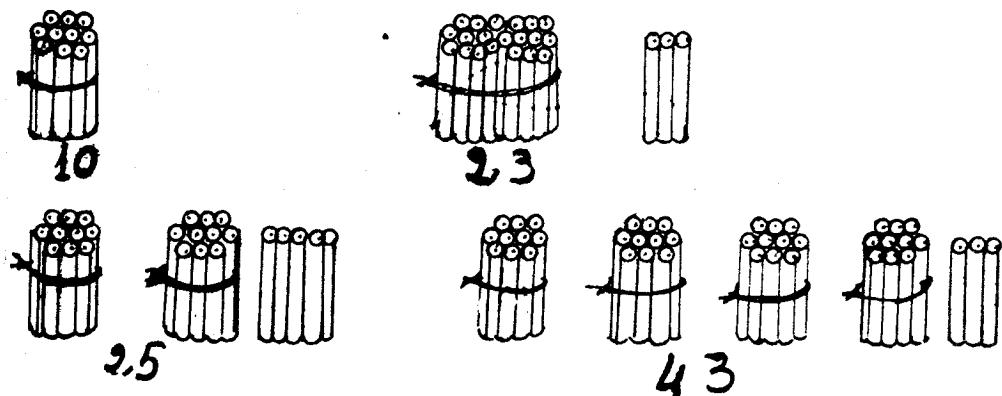
Aritmatiga aynu dugsiyada hoose ku dhignaa waxay ka bila-abmataa mid ardayga baraysa alaaboo tiradeedu intay tahay iyo astirooyinka tiradaasi u taagan.

U fiirso tusaalaha hoos ku yaal :



Marka aan ka hadlayno alaaboo xaddigeedu inta uu yahay **waxaynu** isticmaallaa tiro (Saddex) iyo astiro (3). Tiro waa magaca xaddigga; astirana waa qarmada tiradaasi.

D. Ardaygu marka uu si fiican u barto : 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ayaa loo bilaabayaa xirmaynta oo ah tiro marka ay sagaal dhaafsto in loo baahan yahay hab tiradii lagu soo koobo oo alaaboo xirmooyin tobannaysugu xiro sida :



Xirmada u horreysa waxaynu ku magacawnaa toban, waxaynuna u akhrinnaa xirmo toban ah iyo eber koowaad, qormadeed waa 10. Isla marka aynu astirada (10) dhigno ayaa waxa inoo bilaabmay rugta tirada.

Casharka 1aad

Ujeeddo :

IN LA BARO MACNAHA IYO AKHRISKA TIROOYINKA 1, 2, 3.

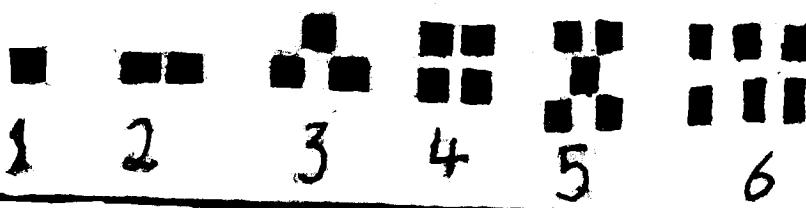
1. Qalabka la isticmaalayo;
 - a) Kooxdii dhagaxda ahayd;
 - b) Xaashiyaha astirooyinka ee ay ku y a a l e e n ,
(1, 2, 3.)
2. Ilmaha intooda badani kor wey ka tirin karaan ilaa 10. Hase ahaatee, waxaa laga yaabaa in aanay micnaha aad u fahamsanayn. Waxa markaa lagama maarmaan ah in ardayga lagu baro micnaha tiro alaaboo uu taaban karo iyo shaxanno uu tiriyo.
3. (b) Sida loo dhigaayo 1, 2, 3, bal aan tusaale u qaadanno tirada 2. Kor u qaad laba buug. Ku dhawaaq, waa laba buug. Kor u qaad laba qalin. Sheeg inay yihiin laba. Laba arday soo taag fasalka horiisa. Sheeg inay yihiin laba. Waxaa kaloo la isticmaali karaa wax allaaliyo wixii uu markaa baruhu door bido.
(t) Dhawr shaxan oo mid waliba ka kooban yahay laba wax ku sawir sabuuradda, astirada 2 ku ag qor. Sheeg in waxa uu shaxan waliba ka kooban yahay ay tahay laba looguna dhawaaqo laba, sida loo qoraana ay tahay 2.

- (j) U dir ardada (1) in uu mid waliba ka soo saaro dhagaxdiisii labo, (2) in uu mid waliba soo saaro xaashida astirada ee ay 2 ku qoran tahay. Hubi in markaa arday waliba sax yahay.
4. Buugga ardayga bogagga (1) iyo (2) shaxannada mid waliba tirada uu yahay sheeg, astirada ku ag qoran u fiirsada ardada ku dheh oo sabuuraddana ku qor. Shaxannada iyaguna ku yaal bogagga 3, 4, iyo 5, ilmaha waxaad ku tiraahdaa sheega tiradiisa, xaa-shiyaha astiradana ka soo saara astirada u taagan. Hubi in la wada sahmay.

Casharka 2aad

Ujeeddo :

- 1) IN LA BARO MACNAHA IYO AKHRISKA 4, 5, 6.**
- 2) Eber (waxba) oo la Barayo**
1. Qalabka la isticmaalayo;
 - a) Kooxdii dhagaxda ahayd;
 - b) Xaashiyaha astirooyinka ee ay ku yaaleen, (0, 4, 5, 6).
2. Tirooyinka 4, 5 iyo 6, mid walba u dhig sidaynu tu-saalaha uga bixinay tirada 2 markii tirooyinka 1, 2 iyo 3 la dhigayay.
3. Buugga ardayga bogagga 6 iyo 7 shaxannada mid waliba tirada uu yahay sheeg, astirada ku ag qorana u fiirsada ku dheh ardada oo sabuuraddana ku qor. Shaxannada iyaguna ku yaal bogga 8, 9, iyo 10, ilmaha waxaad ku tiraahdaa sheega tiradiisa, xaa-shiyaha astirooyinkana ka soo saara astirada u taagan.
4. Kor ka bar tirada min 1, 2, ilaa 6. Waxaa laga yaabaa in arday walba kor ka yaqaan tirada ilaa 6. Hase yeeshie, intaad sabuuradda ku qortid shaxanka hoos ku yaal, hubi inuu arday waliba qaybay.



5. Waxaad imminka bilowdaa sidaad tirada Eber (waxba) u dhigi lahayd. Habka hoos ku yaal raac.
6. Afar goobo ama afar shay sabuuradda ku sawir. Weyddii ilmaha tirada gooboyinkaa ama shaxanda. Mid tir. Weyddii ilmaha inta hartay. Waa in la guugu jawaabaa «saddex baa hartay». Mid kale tir. Weyddii ilmaha tirada inta hartay, waxaa haray laba. Mid kale tir. Waxaa haray hal. Tir midkana, oo weyddii ilmaha waxa haray. U sheeg inuu haray Eber (waxba).

Dhawr tusaale oo sidoo kale mid walba ku dhammaanayo Eber (waxba), tus ardada. Tus in qormadiisu yahay eber 0.

Shan buug ama qalin ama shan shay kor u qaad. Weydii ilmaha intey yihiin, kolba mid dhig miiska guudkiisa adigoo isla markaana weydiinaya inta hartay. Markaad wada dhigtid weyddii ardada inta hartay. U sheeg inay hartay eber (waxba). Dhawr tusaale oo sidoo kale ah tus, qormada na tus.

Casharka 3aad

Ujeeddo :

ISUGEYN IYO KALAGOYN FUDUD OO LAGU BARAYO QALABKA :

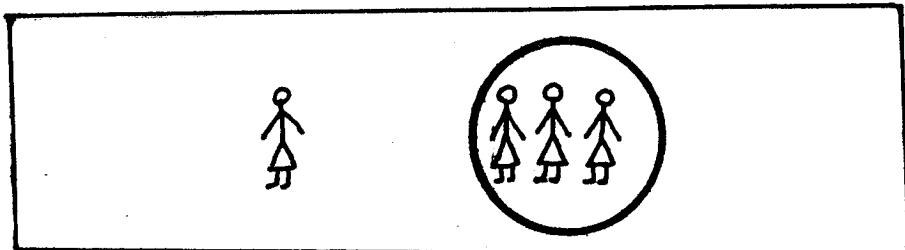
1. Qalabka la isticmaalayo.
- b) Kooxdii dhagaxda ahayd.

- t) Xaashiyaha astirooyinka ee ay ku yaaleen
 0, 1, 2, 3, 6
2. Naqtiiin inay tirada guudka ka akhriyaan ilaa 6,
- b) Xaashiyaha astirooyinka kolba mid soo saar oo ardada oo dhan tus. Kolba mid weyddii inuu ku dhawaaqo tirada.
- t) Laba dhagax ka soo saara dheh dhagaxdiinii. Laba kalana soo saara oo midba gacan ku qabta ku dheh. Isku dara. Waa isku immisa dheh. Ha tiriyeen. Sidoo kale u tus isugeynta

2 iyo 3, 2 iyo 1, 3 iyo 1, 3 iyo 3, 4 iyo 2
 adigoo isticmaalaya buugag, qalimmo iyo wixii
 aad markaa door biddid.

Laba shaxan sabuuradda ku sawir oo goobo ku wareeji. Laba kaleena ku ag sawir oo goobo ku wareeji. Weyddii inta shaxan ee sabuuradda ku sawiran. Ha tiriyeen. Sidoo kale dhawr tusaale oo isugeynta ila wadar lix ah tus.

- 3) Buugga ardayga bogagga 11 iyo 12 weyddii shaxan walba tirada qaypta hore iyo qaypta dambe waana isku immisa dheh. Ha tiriyeen.
- 4) b) Saddex dhagax ka soo saara dheh dhagaxdiinii. Mid ka qaada dheh. Weyddii inta hartay. Sidoo kale, kolba tiro dhagax ah soo saara dheh, qaar ka qaada dabadeedna sheega dheh inta hartay.



- t) Afar qof ku sawir sabbuuradda, saddex ka mid ah goobo ku wareeji sida shaxanka kor ku ya-al. Weyddii : haddii aan saddexda qof ee gobadu ku wareejisan tahay ka qaadno, maxaa soo haraysa. Tusaalooyin badan oo sidoo kale ah samee.

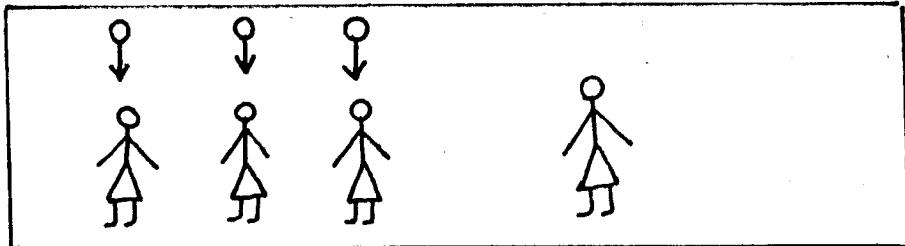
Casharka 4aad

Ujeeddo :

IN LA BARO FIKRADDA KEE BADAN, KEE YAR

1. Qalabka la isticmaalo;
 - b) Kooxdii dhagaxda ahayd;
 - t) Xaashiyaha astirooyinka;
2. Naqtiiin inay tirada guudka ka akhriyaan ilaa lix, xaashiyaha astirooyinka kolba mid soo saar oo ar-dadoo dhan tus. Kolba mid weyddii inuu ku dha-waaqo tiradaa.
 - t) Laba wiil soo kici oo taag fasalka hortiisa. Afar habloodna waxaad taagtaa wiilasha agtooda, weyddii ardada ka badan. U sheeg in habluhu badan yihiin, haddana weyddii ka yar. U sheeg in inammadu yar yihiin. Dhawr tusaale oo sidoo kale ah tus ardada adigoo isticmaalaya qalimo, buugag iyo wixii aad markaa door bid-do.
 - j) Dhagaxdjinii ka soo saara dheh saddex dhagax oo miiska guudkiisa saara. Laba dhagax oo kale iyana soo saara dheh, oo meel u dhow dhagaxdii hore dhiga. Weyddii ka badan iyo ka yar. Intee bay kala badan yihiin ? U sheeg inay tahay kow intay kala badan yihiin. Dhawr tusaale oo sidoo kale ah tus ardada.

- x) Sabbuuradda ku sawir saddex goobo, waxaad goobooinka hoostooda ku sawirtaa afar qof. U sheeg ardada ka badan iyo intay kala badan yihiiin. Adigoo mid mid isugu aadinaya sida shaxanka hoos ku muujisan dhawr tusaale oo sidoo kale ah tus ardada.



3. Buugga ardayga boggaga 13 iyo 14 ka wada shaqeeya adigoo weydiinaya su'aalahan.
- b) Waa immisa tirada alaabta xagga midigta xigta ? Waa immisa tirada alaabta xagga bidixda xigta ?
 - t) Kee badan labadaa tiro keese yar ?
 - j) Immisa ayey kala badan yihii ?

Casharka 5aad

Ujeeddo :

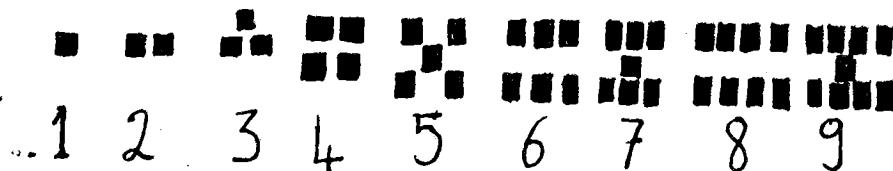
BARIDDA MACNAHA IYO AKHRISKA 7, 8, 9 :

1. Alaabta la isticmaalayo;
- b) Kooxdii dhagaxda ahayd;
- t) Xaashiyaha astirooyinka.

2. Tirooyinka 7, 8, 9, mid walba u dhig sidaynu tusalkaha uga bixinay tirada 2 markii tirooyinka 1, 2, 3, la dhigaayey.

3. Buugagga ardayga bogagga 15 iyo 16 shaxannada mid waliba tirada uu yahay sheeg astirada ku ag qorana u fiirsada ku dheh ardada oo sabbuuraddana ku qor.

Shaxannada iyaguna ku yaal bogagga 17, 19 iyo 20 ilmaha waxaad ku tiraahdaa sheega tiradiisa, xaa-shiyaha astirooyinka ka soo saara astirada u taagan. Kor ka bar ardada tirada min 1 ilaa 9, adigoo la raa-acaaya shaxannada hoos ku yaal oo sabbuuradda ku sameysan.



Casharka 6aad

Ujeeddo :

BARIDDA ODHAAHDA IYO FIKRADDAA KEE BADAN, KEE YAR, ISLE'EG

1. Ku soo celi casharka lixaad iyadoo imminka tirada aad isticmaalaysa ay ka kooban tahay ilaa 9,

Casharka 7aad

Ujeeddo :

BARIDDA KALAGOYNTA IYO ISUGEYNTA FUDUD ILAA WADAR 9 AH.

1. Ku soo celi casharka saddex 3, iyadoo imminka aad gaarsiinaysid ilaa wadar 9 ah.

Casharka 8aad

Ujeeddo :

IN LA BARO TIRADA TOBAN (10), BIIROOYINKA TOBAN KU SHIYA IYO TIROOYINKA 11, 12 IYO 13.

1. Qalabka la isticmaalo;
Kooxdii dhagaxda ahayd;
2. b) Dhagaxda arday walba sagaal ka soo saar dheh,
hal dhagax oo kale soo saara dheh oo ku dara
kuwii hore,u sheeg in tirada la yiraahdo toban,
sabbuuraddana ku qor 10.
 - t) Sagaal arday fasalka hortiisa taag. Weyddii
inta ay tahay tirada ardaydu. Hal arday oo ka-
le ku dar oo weyddii tirada cusubi inta ay tahay.
U sheeg inay tahay toban. U tilmaan inay u
fiirsadaan astirada 10. Dhawr tusaale oo sidoo
kale ah tus.
 - j) Sagaal shay ku sawir sabbuuradda. Weyddii
tirada inta alaaboo ku jirta shaxankan. Hal shay
oo kale ku dar oo u sheeg inay imminka tiradu
tahay toban.
 - x) Toddoba dhagax ka soo saara dheh dhagaxdii-
nii. Saddex kalena soo saara dheh oo isku dara.
Tiriya dheh. Waa inay noqotaa toban. Sidoo
kale tus in 6 iyo 4 ay tahay toban, 5 iyo 5 ay
tahay toban, 8 iyo 2 ay tahay toban, 9 iyo 1
ay tahay toban. Farahiina tiriya dheh. Waa
inay noqdaan toban.
 - d) Buugga ardayga bogga 21 shaxan walba tiriya
dheh. Tiro walba waa inay ahaataa toban.

- r) Imminka soo saara dheh toban dhagax oo ku dara dheh hal dhagax. U sheeg inay tahay hal toban iyo kow. U sheeg in loo akhriyo tiradaa toban iyo kow. Toban dhagax soo saara dheh oo ku dara laba dhagax. U sheeg inay tahay hal toban iyo laba loona akhriyo toban iyo laba. Toban dhagax soo saara dheh oo ku dara saddex dhagax. U sheeg inay tahay hal toban iyo saddex, loona akhriyo toban iyo saddex.
- s) Buugga ardayga bogga 22 shaxannada akhri adigoo sheegaya in ay yihiin (1) hal toban (2) hal toban iyo kow, oo loo akhriyo toban iyo kow, (3) hal toban iyo laba oo loo akhriyo toban iyo laba, (4) hal toban iyo saddex oo loo akhriyo toban iyo saddex.

Casharka 9aad

Ujeeddo :

IN LA BARO TIROOYINKA 14, 15, 16 IYO WIXII KA BADAN

1. Buugga ardayga bogga 23, 24, iyo 25 u akhri sheegna in shaxannadu yihiin :

- (i) Hal toban iyo afar oo loo akhriyo toban iyo afar
- (ii) Hal toban iyo shan oo loo akhriyo toban iyo shan
- (iii) Hal toban iyo lix oo loo akhriyo toban iyo lix
- (iv)

- (vii) Labo tobnaad oo loo akhriyo labaatan
 - (viii) Labo tobnaad iyo kow oo loo akhriyo labaatan iyo kow.
 - (ix) Laba tobnaad iyo labo oo loo akhriyo labaatan iyo laba.
 - (x) Laba tobnaad iyo saddex oo loo akhriyo labaatan iyo saddex.

(xvii) Saddex tobnaad oo loo akhriyo soddon.

Waa in markaa la baraa inay kor ka akhriyaan tirada min kow, ilaa soddon (30).

Buugga ardayga bogga 26 iyo 27 u sharax ardada in shaxannadu ay yihin :

- (i) Afar tobnaad oo loo akhriyo afartan,
 - (ii) shan tobnaad oo loo akhriyo konton,
 - (iii) Lix tobnaad oo loo akhriyo lixdan,
 - (iv) Toddoba tobnaad oo loo akhriyo toddobaatan,
 - (v) Siddeed tobnaad oo loo akhriyo siddeetan
 - (vi) Sagaal tobnaad oo loo akhriyo sagaashan
 - (vii) Toban tobnaad oo loo akhriyo boqol

Wa in imminka ardada la baraa inay tirada kow (1) ilaa boqol (100) ay kor ka akhriyaan.

Cutubka Labaad :
QORAALKA TIRADA, ISUGEYNTA
IYO KALAGOYNTA
Tilmaan Guud

Qoraalka astiradu waa ku adag tahay ilmaha markuu marayo fasalka koowaad. Waxaa markaa loo baahan yahay in laga feejignaado Aadna loo laylyo ardayga marka ardayga la baraayo qoraalka astirooyinka. Astiro waliba halkay ka bilaabantay, halkay ka qalloocsameyso iyo halkay ku dhammanayso waa in ardada la tusaa. Astirooyinka qaraalkoodu adag yahay sida 2, 3, 4, 5, iyo 8 waa in iyaga fiiro gaar ah loo yeeshaa.

Ujeeddooyinka aynnu isugeynta iyo kalagoynta ka rabno waa labo, kuwaas oo ah :

- 1) In la baro ardayga fikradda isugeynta iyo kalagoynta.
- 2) In lagu laylyo ardada weedhaha isugeynta iyo kalagoynta iyadoo lagu shaqeynaayo tusaalooyin tirooyin ah iyo laylisyo. Laylisyo fasalka labaad iyo fasalka saddexaad ayaad kula kulmeysaa.

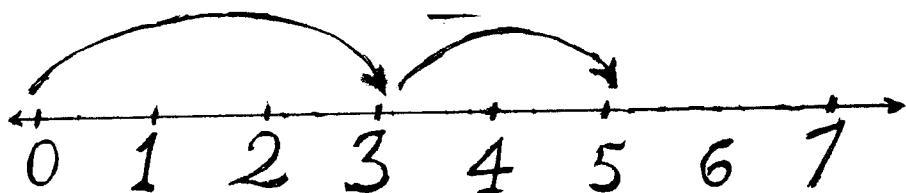
Isugeynta si aynu ujeeddooyinka kor ku qoran uga gaarno waa in markaynu isugeynta dhigayno, aynu raacnaa afarta qodob ee hoos ku yaal.

- 1) Laba kooxood oo tiradooda la yaqan ayaa la isu geeyaa oo sameeya koox saddexaad.
$$4 + 7 = n$$
- 2) Koox tiradeeda la yaqaan ayaa loo geynayaa koox aan tiradeeda la aqoon si ay u le'ekaadaan kooxda saddexaad ee tiradeeda la yaqaanay.
$$3 + n = 7$$

- 3) Koox aan tiradeeda la aqoon ayaa loo geynayaa ko-ox tiradeeda la yaqaan si ay u le'ekaadaan koox sad-dexaadda oo tiradeeda la yaqaanay.

$$n + 4 = 7$$

- 4) Xarriiqda tirada oo lagu muujinaayo tirooyin la isu geynaayo. Tusaale ahaan bal aan qaadanno wee-dhaha. $3 + 2 = 5$,



Weedha micnaheedu waxaa weeye tirada eber kaga bilow oo saddex god xagga midigta u soco. Waxaad gaaraysaa astirada 3. Laba god oo kalena midigta u soco. Waxaad gaaray-saa astirada 5.

Sidoo kale ujeeddooyinka kalagoyn ta waxa lagu gaari kar-aa iyadoo la raaco afarta qdob ee hoos ku yaal.

- 1) Ka qaadid : matalan, waxaad haysataa sideoon qallin? Waxaad ka qaaddaa saddex. Maxaa soo haray ? Tanu waxay keenaysaa weedha kalagoyn ta;

$$8 - 3 = ?$$

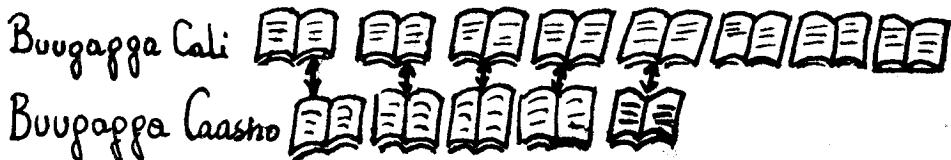
- 2) Kahorjeedaha isugeynta : weedh kasta oo isugeyn ah waxaa la xiriira laba weedhood oo kalagoyn ah. Matalan :

- a) Weedha isugeynta $5 + 3 = 8$ (i)
 Weedhaha kalagoyn ta $8 - 5 = 3$ (ii)
 $8 - 3 = 5$ (iii)

Si aad u muujisid in (ii) iyo (iii) ay yihiiin ka hor-jeedka (i), fiirso laylisyada soo socda:

- (i) Raage wuxuu isiiyay 5 qalin. Dahabo waxay isiisay 3 qalin. Dhammaan waxay isiiyeen siddeed qalin.
 - (ii) Raage iyo Dahabo waxay isiiyeen siddeed qalin. Raage wuxuu isiiyay shan ka mid ah. Dahabana waxay isiisay saddexda kale.
 - (iii) Raage iyo Dahabo waxay isiiyeen siddeed qalin. Dahabo waxay isiisay saddex ka mid ah, Raagena wuxuu isiiyay shanta kale.
- 3) Isgarabdhigga uruuradda :

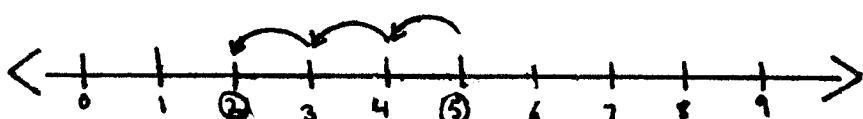
Cali wuxuu haystaa siddeed buug. Caasha waxay hay-sataa shan buug. Immisa buug yaa Cali dheer yahay Caasha ? Mas'alaad weedheeda kalagoontu waa $8 - 5 = ?$ Waxaana lagu furfuri karaa isku aaddin.



Haddaba Cali wuxuu dheer yahay Caasha saddex buug
 $8 - 5 = 3$,

4) Diburaaca xarriiqda tirada.

Xariiqda tiradu isugeyn taageeraysaa. Maadaama ay kalagoontu tahay ka horjee-daha isugeyn, horuraaca xariiqda tiradu waa isugeyn, diburaacuna waa kalagoyn. Weedha $5 - 3 = ?$ waxaa la oran karaa : isku taag shan oo xariiqda tirada ku taal. Saddex tallaabo dib u qaad. Tiradee timi? (2). Haddaba $5 - 3 = 2$.



Ugu dambeystii kalagoyntu laba arrimood ayay isugu soo ururtaa.

- (1) Biiro maqan oo la raadinaayo (ka qaadid). Taas oo imanaysa marka wadarta iyo biiro aad haysatid.
- (ii) Isgarabdhigid oo ujeedadeedu tahay faraqa laba wax u dhexeeya oo la soo saaro.

Casharka 10aad

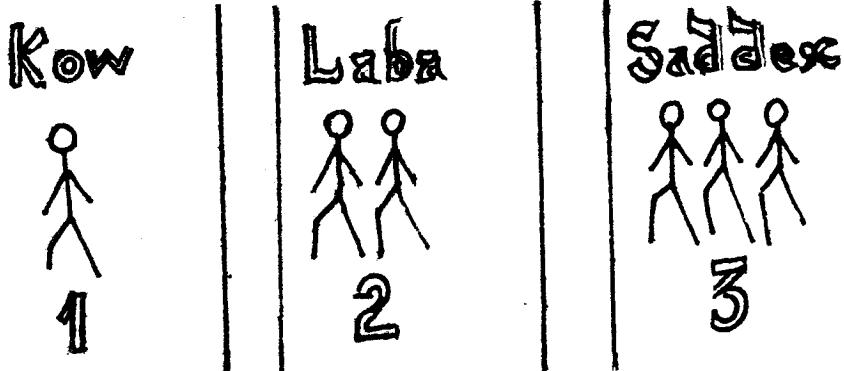
Ujeeddo :

IN LA BARO MARKII UGU HORREYSEY QORAALKA ASTIROOYINKA 1, 2, 3.

Qalabka la isticmaalayo.

Xaashiyaha astirooyinka

- 2) b) Sabbuuradda ku sawir saddex shaxan oo tirada alaabta ku jirtaa ay tahay kan hore kow, kan labaadna laba, kan saddexaadna saddex. Weydii ardada tirada shaxan walba ku jirta. Erayada kow, laba iyo saddex mid walba ku guud qor shaxankeeda. Imminka ku dhawaaq tirada kow, xaashiyahooda astirooyinkana ha ka soo saareen. Astirada 1 ku hoos qor shaxankeeda. Weyddii ilmaha inay isu'eg yihii. Tirooyinka laba iyo saddexna sidoo kale u tus.



- t) Tus ardada adigoo sabbuuradda isticmaalaya, in marka la qoraayo astiro 1 xagga sare lagaga soo bilaabo oo hoos loo soo jiido. Far ardada markaa in ay ku qoraan astirada 1 miiska guudiisa iyagoo isticmaalaya far ka mid ah farahooda ama qalinkooda xaggiisa dambe ee aan khadka lahayn. Astirooyinka 2 iyo 3 iyana waa inay sidoo kale u sameeyaan, adigoo tilmaamaya qoraalku halka uu ka bilowdo iyo halka uu ku dhamaado oo raacayana buugga ardayga bogga 28 habkiisa.
 - j) Dibedda u soo saar ardada iyadoo mid waliba uu sito xaashiyaha astirooyinka ee ay ku qoran yihiin 1, 2, 3. Isagoo mid waliba is hor hayo xaashiyaha astirooyinka far inay ku qoraan dhulka saddexdaa astiro (1, 2, 3). Waxaad dabadeed u dirtaa inay dhagax soo urursadaan oo ay ku guud taxaan waxa ay qoreen.
 - x) Ku soo celi ardada fasalka. Soo saara dheh buuggooda bogga 1 oo u fiirsada dheh, dabadeed tobant jeer ha ku qoreen astiro, walba buuggooda wax qorista.

Waa markii ugu horreysey ee ay buugooda wax
wax qorista ee xisaabaha ay isticmaalaan. Wa-
xaa baraha markaa looga baahan yahay inuu

hubiyo in si nadiif ah ay ardadu wax ugu qorto.

- d) Bogga 29 ee buugga ardayga, shaxan walba tirada alaabta ku jirta ha qoreen.

Casharka 11aad

Ujeeddo :

IN LA BARO MARKII UGU HORREYSEY QORAALKA

. ASTIROOYINKA 4, 5, 6.

- 1) Qalabka la isticmaalayo;
Xaashiyaha astirooyinka;
- 2) Qoraalka astirooyinka 4, 5, 6 marka la dhigayo ha
la raaco habka casharka kowaad 1 ee ah qoraalka as-
tirooyinka 1, 2, 3;
- 3) Buugga ardayga bogagga 31 iyo 32 ha qoreen astiro-
oyinka sheegaya tirada alaabta shaxan walba ku jirta.

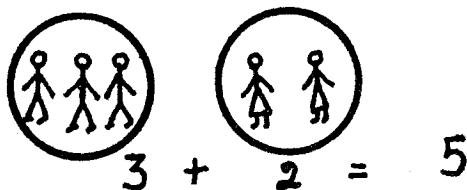
Casharka 12aad

Ujeeddo :

(1) IN LA BARO ISUGEYNTA MICNAHEEDA OO AH WAX LAYSNU DARAY

(2) IN LA BARO WEEDHA ISUGEYNTA

- 1) Qalabka la isticmaalayo; kooxdii dhagaxda ahayd.
- 2) Shaxan saddex shey ka kooban sabbuuradda ku sa-
wir. Shaxan kale oo laba wax ka kooban ka hore
ku ag sawir. Weyddii tirada alaabta labada sha-
xan ku jirta. Marka la isu geeyo waa immisa dheh.
Ha tiriyeen. Dabadeed weedha ah, $3 + 2 = 5$ ku
hoos qor. U sheeg markaa macnaha weedhaasu
inay tahay saddex iyo labo waa isku shan. U akhri
saddex loo geeyey laba waxay le'eg tahay shan.



- b) Dhagaxdii ka soo saara dheh saddex dhagax. Miiska guudkiisa dhiga dheh. Laba dhagax oo kale soo saara dheh, oo kuwii hore ag dhiga dheh. Isku dara dheh oo weyddii tirada dhagaxda. Weedha $3 + 2 = 5$ ku qor sabuuradda oo u sheeg in micnaha weedhu yahay saddex dhagax marka lagu daro laba dhagax waa shan dhagax.
- U akhri saddex loo geeyey laba waxay le'eg tahay 5. U sheeg in calaamadda + ay tahay loo geeyey, calaamada «=» ay tahay le'eg tahay ama waa.
- t) Saddex buug tus ardada oo u sheeg in tirada buugtu tahay saddex sabuuraddana ku qor 3. Laba buug oo kalena tus. Sheeg in tirada buugtu tahay labo. Sabuuradda, meel la siman 3, ku qor 2. Buugaagtii isku dar. U sheeg in tiradoodu tahay shan. U sheeg in saddex buug oo loo geeyo laba buug ay tahay shan buug. Astirooyinkii sabuuradda kuugu qornaa weedha $3 + 2 = 5$ ka samee adigoo u akhriyaaya saddex loo geeyey labo waxay le'eg tahay shan.
- j) Adigoo raacaya habka aynu ku t u s n a y
 $3 + 2 = 5$, ardada tus $1 + 1 = 2$, $1 + 3 = 4$,
 $2 + 2 = 4$, $2 + 3 = 5$, $3 + 3 = 6$,
 $2 + 4 = 6$, $4 + 2 = 6$, $2 + 1 = 3$, iwm.
- 3) Buugga ardayga boggaga 33 iyo 34 shaxan walba sharax. Weedh walbana sabuuradda ku qor iyadoo dhinac u tax iyo joog u tax ah sida hoos ku qoran :

$$\begin{array}{r}
 & 1 \\
 & + 3 \\
 \hline
 1 + 3 = 4, & 4
 \end{array}$$

Qora ku dheh weedhahaas sabuuradda ku qoran oo dhan. Bogagga 35 iyo ilaa 37 ha buuxiyeen meelaha madhan oo wedh walba ha ku qoreen buugooda.

Casharka 13aad

Ujeeddo :

**(i) IN LA BARO KALAGOYNTA OO MACNAHEEDU
YA HAY KA QAAD :**

(ii) IN LA BARO MARKII UGU HORREYSEY

**KALAGOYN A OO HORJEEDAHA ISUGEYNTA
AH :**

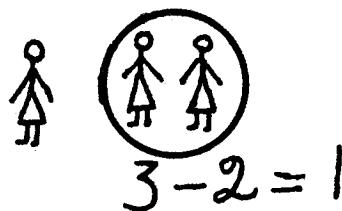
(iii) IN LA BARO WEEDHAHA KALAGOYNTA :

1) Qalabka la isticmaalayo.
Kooxdii dhagaxda ahayd.

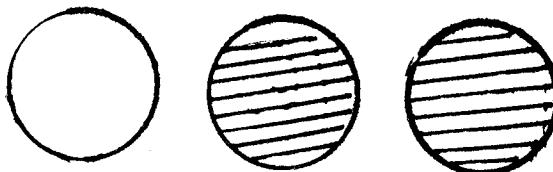
2) b) Dhagaxdii ka soo saara dheh, saddex dhagax. Laba dhagax ka qaada. Immisaa soo haray dheh, sabuuraddana ku qor weedha $3 - 2 = 1$. U sheeg in macnaheedu yahay saddex laga qaaday laba waxa weeye kow. U akhri : saddex laga gooyey laba waxay le'eg tahay kow. U sheeg calaamada — inay tahay laga gooyey.

t) Saddex qalin kor u qaad oo u dhiib arday. La-
ba qalin ka qaad ardayga. Weyddii inta uu
ardaygū hayo. Weedha $3 - 2 = 1$ ku qor
sabuuradda adigoo u macneynaya saddexda qa-
lin oo laga qaaday laba qalin waxaa soo haray
hal qalin. Dabadeed u akhri weedha saddex
laga gooyey laba waxay le'eg tahay kow.

j) Shaxan saddex shay ah ku sawir sabuuradda,
laba ka mid ah goobo ku wareeji. Weyddii
markaa «haddii aan saddexdaa shay labadaa ka
qaado immisaa soo h a r a y a ?» Weedhan,
 $3 - 2 = 1$ ku hoos qor shaxanka. U sheeg
macnaeeda U akhri, «saddex laga gooyey la-
ba waxay le'eg tahay kow.»



- x) Markaad qodobbada «B» iyo «J» sharraxsid weedh walba joog u tax u tus ardaada,
 $3 - 1 = 2$, $2 - 1 = 1$, $4 - 3 = 1$,
 $4 - 2 = 2$, $5 - 2 = 3$, IWM.
- 3) Buugga ardayga bogagga 38 iyo 39 shaxan walba ardada uga wada shaqeeya sida shaxanka hoos ku yaal :



$$3 = 1 + 2,$$

$$3 - 1 = ?$$

$$3 - 2 = ?$$

Shaxanku wuxuu tusayaa hal goobo oo cad iyo laba goobo oo har leh. Weedhahan markaa akhri :

- (i) saddex waxay le'eg tahay kow loo geeyey labo;
- (ii) saddex laga gooyey kow waxay le'eg tahay labo;
- (iii) saddex laga gooyey laba waxay le'eg tahay kow.

Ha qoreen ardadu weedhaha kalagoyn ta ah iyagoo buuxinaaya meelaha madhan. Waxay imminka u diyaar yihiin ardadu inay ka shaqeeyaan layliyada ku yaal bogagga 40, 41 iyo 42.

Ujeeddo :

**IN LA BARO FIKRADDA EBER (0) KA YAR IYO KA
WEYN IYO QORAALKOODA:**

- 1) Qalabka la isticmaalayo;
Kooxdii dhagaxda ahayd.
- 2)
 - b) Saddex qalin ardada tus; tirada qalimadu waa saddex dheh. Mid meel gooniya dhig. Weyddii inta hartay. (2) mid kalana ka qaad labada hartay. Weyddii inta hartay. Midkaa harayna qaad dabadeedna weyddii inta hartay. U sheeg inay hartay eber. Qor astirada 0.
 - t) Dhagaxdii iyadoo lagu shaqeenayo, kolba tiro soo saara dheh oo uga shaqeeya sida qodobka «B» ee ah qodobka 2aad.
 - j) saddex goobo sabuuradda ku sawir, tirada goobooyinku waa saddex dheh. Mid tir. Weyddii inta hartay (2). Mid kalena tir. Weyddii tirada hartay (1). Midda hartay tir. Weyddii inta soo hartay. U sheeg inay hartay eber 0. Kelmada iyo astiradana tus; ha u fiirsadeen.
 - x) Dhawr tusaale oo aad la raacdoo qodobbada «b», iyo «j» ardada sii.
- 3) Buugga ardayga bogga 43 shaxanka tirada ku jirtaa ay tahay laba (ama saddex ama eber), erayada iyo astiradaba waxa loo qoraa sida kuwa toos ugu bee-gan. Wuxaad markaa ka wada shaqeysaan kalagoonta iyo isugeyn ta eber ku jirto oo bogga 43 xaggiisa hoose ku taal.
- 4) Laba dhagax ka soo saara dheh dhagaxdii. Saddex kalana ka soo saara dheh dhagaxdii. Weyddii labadaa kooxdii badan. U sheeg in 3 badan tahay. Qor weedha ah $3 > 2$ una akhri saddex baa ka badan 2.

Weedha iyana ah 2 < 3 ku qor sabuuradda una akhri 2 ka yar 3. Tusaalooyin badan oo sidoo kale ah tus ardada.

- 5) Bogga 44 qaybta hore u akhri dabadeedna layliga u dir.

Casharka 15aad

Ujeeddo :

IN LA BARO MARKII UGU HORREYSEY QORAALKA ASTIROOYINKA 7, 8, 9.

- 1) Qalabka la isticmaalayo; xaashiyaha astirooyinka.
- 2) Qoraalka astirooyinka 7, 8 iyo 9 marka la dhigayo ha la raaco habka casharka 1aad, ee ah qoraalka astirooyinka 1, 2, iyo 3.
- 3) Buugga ardayga bogga 47 ha tiriyeen shaxan walba alaabta ku jirta dabadeedna ha qoreen.

Casharka 16aad

Ujeeddo :

ISUGEYN LAGU FIDINAAYO ILAA WADAR 9 AH.

- 1) Qalabka la isticmaalayo; kooxdii dhagaxda ahayd;
- 2) Habka casharka 3aad ha la raaco iyadoo imminka wadartu ay tahay ilaa 9.
- 3) Ha akhriyeen ardadu buugga ardayga bogagga 48, 49 iyo 50, layliyadana ha ka shaqeyeen.

Casharka 17aad

Ujeeddo :

KALAGOYNTA OO LAGU BAAHINAAYO ASTIROOYINKA 7, 8 iyo 9.

- 1) Qalabka la isticmaalayo; kooxdii dhagaxda ahayd;

- 2) Habka casharka 4aad ha la raaco iyadoo imminka tirada aynu isticmaalaynaa ay tahay ilaa 9;
- 3) Buugga ardayga bogagga 51, 52 iyo 53 ha la adeeg-sado.

Casharka 18aad

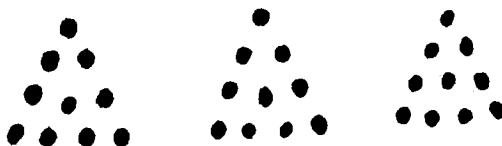
Ujeeddo :

IN LA BARO QORAALKA 10 IYO BIROOYINKA 10 IYO FIKRADDA TOBNAADKA :

- 1) Qalabka la isticmaalayo; kooxdii dhagaxda ahayd;
- 2) Kooxdii dhagaxda ahayd marka hore toddoba dhagax ka soo saara dheh. Marka xigtana saddex dhagax soo saara dheh. Isku dara dheh, dabadeedna sheeg tirada wadarta. Sabuuradda ku qor weedha $7 + 3 = 10$

U akhri toddoba loo geeyey saddex waxay le'eg tahay toban. Sidoo kale tus in $5 + 5 = 10$, $8 + 2 = 10$, $9 + 1 = 10$.

- 3) Buugga ardayga bogga 54 layliyada bogga 55aad ha ka shaqeeyeen;
- 4) Saddex kooxood oo min toban ku sawir sabuuradda.



$$3 \text{ tobnaad} = 30.$$

Sheeg inay tahay saddex tobnaad lana yiraahdo soddon. Sidoo kale tus dhowr kooxood oo min toban ah dabadeedna ardadu ha ka shaqeeyeen bogga 56 oo ha ku qoreen buuggooda.

Casharka 19aad

Ujeeddo :

IN LA BARO QORAALKA 11, 12, 13 19.

- 1) Shaxanka hoos ku yaal oo kale oo kooxina tahay toban kooxina tahay afar sabuuradda ku sawir.



1 Tobnaad



2 iyo
4 Koowaaqd = 14

Sheeg inay tahay tiradaasu kow tobnaad iyo afar kow oo loona qoro 14. Sidoo kale u tus tirooyinka 15, 12, 16, . . . 19 IWM.

- 2) U dir inay layliyada bogagga 57 iyo 58 ku yaal ay ku qoraan buuggooda iyagoo buuxinaaya meelaha madhan.

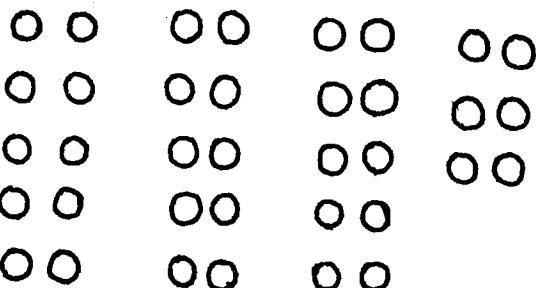
Casharka 20aad

Ujeeddo :

IN LA BARO QORAALKA IYO AKHRISKA

TIROOYINKA LABA KHAANADOOD AH :

- 1) Sabuuradda ku sawir shaxan ah 3 kooxood oo min toban ah iyo 6 kow. Sheeg inay tahay 3 tobnaad iyo



3 Tobnaad

iyo

6 Koowaaqd = 36

lix kow oo loo akhriyo soddon iyo lix loona qoro 36. Sidoo kale u tus 52, 24, 25 iwm.

Buugga ardayga bogga 59 ha ka shaqeeyeen layliga iyagoo buuggooda ku naqilaaya;

- 3) Bogga 60 ha ka barteen sida ay tiradu u kala damyaan inay u kala weyn yihiiin, dabadeedna ha ka shaqeeyeen layliga ku yaal bogga 60 iyagoo saddexda asto kolba tii habboon lagu qorayo jagada shaxanka. Bogga 61 ha buuxiyaan meelaha madhan tusaha iyagoo ku baranaya sida ay isugu xigto tiradu.

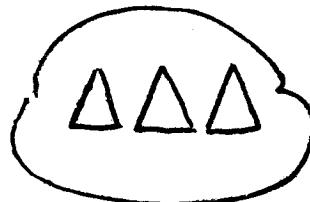
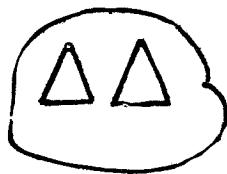
Cutubka Saddexaad

I S U G E Y N T A

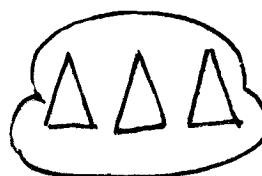
Isugeyntu waxay ka mid tahay afarta xisaabfal. Waxaan aad loogu sharxi karaa isku darka ururro. Xarriiqda tirada qudheeda waa lagu sharxi karaa.

Casharka 21aad

1. Sawir laba urur oo mid ka kooban yahay laba midna saddex saddexgal.



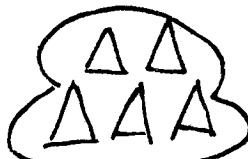
Urur kasta ardayga weyddii tirada uu ka kooban yahay kuna qor tiradooda sidan oo kale :



2

3

Labadan urur xaggooda midig waxaad ku sawirtaa urur ka kooban shan saddexagal kuna qor tiradiisa.



2

+

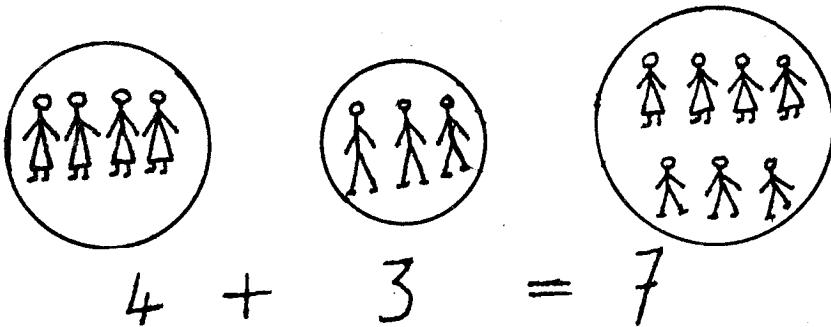
3

=

5

Ardayga weyddii waxa soo baxaya marka la isku daro labadii urur ee hore. Kaddib 2 iyo 3, dhexdhig summadda isugeyn ta oo ah « + ». Kaddibna waxaad $2 + 3$ hortooda ku qortaa summada isle'ekaanta « = ». Wuxaad ku dhawaaqdaa, iyadoo ardaydu dhowr jeer ku celineyso, laba iyo saddex waa shan. Kaddib qor weedha : $2 + 3 = 5$.

2. Saddex arday oo wiilal ah soo saar oo ag joji afar hablood. Koox kastana tiradeeda ku qor sabuuradda. Dhinac isugu gee ardayda, weydiina : Immisaa ku jirta ururkan cusub ? 7.



3. Arday taag oo farahiisana ha laabo. Gacanta midig suulka maahee inta kale ha furo. Tan bidixna faryarada maahee inta kale ha furo. Su'aalahsan weydi :

« Immisa farood baa gacanta midig ka taagan? » afar
« Immisaa tan bidix ka taagan? » afar.

« Immisa farood ayaa dhammaan taagan? » sideed.
« Immisaa laaban? » laba.

Xisaab ahaan weedhahan waxa loo qoraa :

$$4 + 4 = 8 \text{ (Faraha furan)}$$

↓ ↓ ↓
biiro biiro wadar

$$1 + 1 = 2 \text{ (Faraha laaban)}$$

↓ ↓ ↓
biiro biiro wadar

Sidaad u arkeysid inta farood uu gacan ka laabo ama ka taago waxa la yiraahdaa biiro.

4. Ha fureen buuggooda bogga 62 oo intaad cabbaar ka wada shaq eysaan tusaalooyinka, kaddib ardadu korka ha ka buuxiyaan meelaha madhan.

Casharka 22aad

Ujeeddo :

IN LA BARO ARDAYGA SIDA LOO SOO SAARO BIIRO MAQAN ASAGOO HAYSTA BIIRO IYO WADAR

1. Gacanta midig ku qabo afar xabbo oo nacnac ah; tan bidixna laba xabbo. Ardayda tus nacnacaad ku hayso gacanta midig. Kaddib isku dar nacnacyada adoo labada baabaco intaad isku qabatid u sheegaya intaad nacnac haysatid. Sidan oo kale sabuuradda ugu qor.

$$4 + ? = 6$$

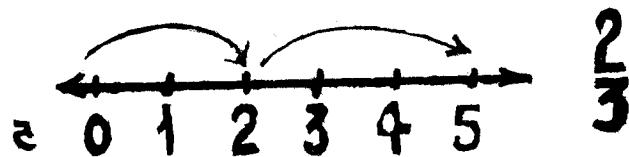
Su'aashan weydii ardayda : «Maxaan khaanadda ge-liyaa si ay wadartu u noqoto sax ?» Dhowr tusaale oo caynkaasoo kale ah u samee fasalka.

2. Ha rogaan buuggooda bogagga 63, 64, 65 iyo 66 aadna ha ugu fiirsadaan kuulaha laga sameeyey weedhaha ay qaarna cad yihiin qaarna ay madow yihiin. Markaad aad u fahamsiiso ardaydu weedha ha ku guuriyaan buugaggooda, meelaha madhanna ha buuxiyaan. Sharraax in $4 + 2 = 6$ ay la mid tahay $6 = 4 + 2$ haddii ay ardayda ka murganto.

Casharka 23aad

Ujeeddo :

IN LA DHIGO ISUGEYNTA QOTONTA IYO XARRIIODA TIRADA



Ardayga dibadda u saar. Dhulka ku sawir xarriiqda tirada oo ku calaamadi astirooyinka 0 ilaa 5. Labadii astiroba tallaabo u dhexeysii. Arday u dooro in uu isku taago «0» kaddib ha u boodo 1 haddana 2. Intaa qaanso ku samee, 2na ku qor korkeeda. Arday kale intuu ka bilaabo 2da ha boodboodo ilaa 5ta. Qaanso ku samee, 2 ilaa 5. Labada astiro ee soo baxay (2 iyo 5) qoton ahaan isu gee, sida :

$$\begin{array}{r} 2 \\ + 3 \\ \hline 5 \end{array}$$

2. Tusaalaha buugga ardayga ayaa ku filan sharraxa kale.
3. Xarriiqda tirada ardayda ku tus laba tiro oo kastaa in ay isle'eg yihiiin ama kala weyn yihiiin ($>$ = $<$).

Tusaale :

$4 > 3$, $2 < 3$, «summadda» $>$ «waxa loo akhriyaa» waa ka weyn tahay ta « $<$ » na waxaa loo akhriyaa «waa ka yar tahay».

Casharka 24aad

Ujeeddo :

DHIGIDDA BIROOYIN WADARTOODU TAHAY 10.

1. Tusahan oo kale ku sawir sabuuradda.

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

U sharax ardayda sida loo buuxinayo khaanadaha tusahan. Tusahan dhowr khaanadood u buuxi. Ardaydu mid mid sabuuradda ha u yimaadeen oo midba khaanad ha buuxsho. Marka khaanadaha la wada buuxiyo, soo qaado hal tiro, metalanba 5, ardaydana weydii in ay soo saaraan tirooyinka wadartoodu tahay. 5.

($5 + 0$, $4 + 1$, $3 + 2$, $1 + 4$; iwm.)

Iyagoo isticmaalaya tusahan ardaydu ha dhammays-tirto weedhahan oo kale :

$$3 + ? = 7$$

$$6 + ? = 10$$

2. Tusaalah buugga ardayda si fiican u sharrax, kad-dibna layliga xiga ha ka shaqeeyeen.

Casharka 25aad

Ujeeddo :

IN LA DHIGO ISUGEYNTA LABA TIRO OO MIDKIIBA TOBAN KA YAR YAHAY IYADOO LA RAACAYO TOBAN DHAMMAYSTIRIDDA

Qalabka loo baahan yahay : Alaab kasta oo miiska la dul saari karo lana tirinkaro sida kuul, dhagaxyo, ulo iwm.

1. Tusaale kaddib, ardaydu ha tiriyeen labada urur, oo la siiyay midba goonidiisa. Si loo helo wadarta labadaa urur, waa in la isu geeyaa labadooda tiro iya-goo tirada dambe lagu tirinayo ta hore ilaa tobantuu buuxsamayso, inta hartana loo geeyaa tobanka.
2. Marka ay ardaydu layliyo dhawr ah oo sida qodob-ka 1aad sameeyaan, ku day in ay biirada dambe u kala qaadaan laba biiro si ay biirada dhexe ugu buuxin karto ta hore.
3. Ha la buuxiyo biirooyinka maqan ee ku yaal bogagga $71 + 72 = 143$ ee buuggooda. Bal eeg in marka ay ardaydu buuxiyaan $6 + 6 = 12$? ay 12 u celin karaan $6 + 6 = 12$ ayagoo raacaya tabtan :

$$10 + 2 = 6 + 4 + 2 = 6 + (4 + 2) = 6 + 6.$$

Haddii ay kari waayaan ka bood.

4. Kooxaynta bogga 73 ku taal bar. Tus in haddii labada biiro ee hore ama labada dambe la isku kooxeeyo, marna aanay wadartu beddelmayn. (Ha magacaabin shariciga hormagalinta).

Casharka 26aad

Ujeeddo :

**IN LA BARO ARDAYDA ISUGEYNTA SADDEX TIRO
OO LABA KA MID IHI 10 ISKU YIHIIN, IYADOO
LA KOOXAYNAAYOHADBA KUWA 10 ISKU AH**

Qalabka loo baahan yahay : Arday kastaa waa in uu la yimaadaa fasalka 19 dhagax.

1. (b) Sabuuradda ku qor $6 + 3 + 4$.
 - (t) Ardaydu ha dhigeen ururro dhagax ah miiska dushiisa sida ay biirooyinka (1b) isugu xigaan. Ardaydu ha aqoonsadeen labada biiro ee 10 isku ah.
 - (j) Ururrada isku 10 ka noqonaya ha is xijiyeen, hana u kooxeeyeen siday doonaan. Matalan :
$$(6 + 4) + 3 \text{ ama } (4 + 6) + 3 \text{ ama}$$
$$3 + (6 + 4) \text{ ama } 3 + (4 + 6).$$

Ha la kaso in mar walba wadartu tahay 13.

2. Dhowr layli ardaydu sabuuradda ha kaga shaqeeyen.
3. Bogga 75aad ee buuggooda waxa lagu baran rogaalka kooxaynta oo ah kala qaadidda. Markan tiro tobantoban ka badan baa loo kala qaadayaa biirooyintoban ah iyo tiro tobantoban ka yar.

Tusaale :

$$16 + 3 = (10 + 6) + 3 = 10 + (6 + 3).$$

4. Qodobka 3aad waxuu ardayda dhaxalsiin in ay gar-taan in ay 16 iyo 3 toos isugay, sidan oo kale

$$\begin{array}{r}
 16 \\
 - 3 \\
 \hline
 19
 \end{array}$$

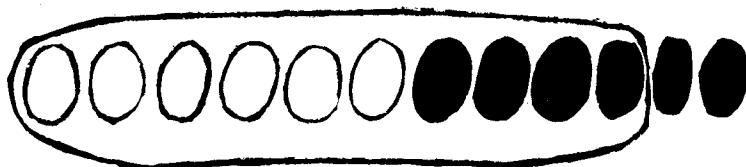
Casharka 27aad

Ujeeddo :

IN LA BARO ARDAYDA QIIMAH A RUGAHA. TOBNAADKA IYO KOWAADKA

Qalabka loo baahan yahay : Abakas, Ulo, Kuulo, IWM.

1. Naqtiin casharka shanaad adoo tusaalah oo kale bixinaaya.



$$6 + 6 = (6 + 4) + 2 = 10 + 2 = 12$$

Ardaydu si wanaagsan ha u kasto in $10 + 2$ ay u qor-mayso 12, halkaasoo «1»da khaanadda bidix ku jirtaa u taagan tahay 1 tobnaad ama 10. «2»da rugta midig ku jirtaana u taagan tahay 2 koowaad. Had-daba 12 waa 1 tobnaad iyo 2 koowaad.

Tobnaad	Koowaad
1	2

Ogow : Marka la muujinayo qiimaha rugta iyo isugeyntoodaba, isticmaal tusaha qiimaha rugta ee ku yaal bogagga u dambeeyaa.

2. U sheeg fasalka in , guud ahaan, haddii tiro laba kha-anadood ka kooban tahay, markaa khaanadda bidix-da xigtaa tahay tobnaadka tan midigta xigtna ko-waadka.

3. Ardaydu ha buuxiyeen tusaha bogga 76aad. Su'ashani waa lagama maarmaan : Waa maxay xiriirka ka dhexeeya ku jirayaasha dhinac u tax kasta ama joog u tax kasta ee tusaha ?
4. Casharka inta ka hartay waa isugeyn tirooyin laba god ah oo aan sidasho lahayn. Tusaale ahaan : $20 + 50$ waa 2 tobnaad iyo 5 tobnaad oo marka la isu geeyo ah 7 tobnaad. Weedha marka la rogaayo waa :

Tobnaad	Koowaad	
		20
		+ 50
2	0	
+ 5	0	
7	0	

$$\begin{aligned} \text{Sidoo kale } 34 + 23 &= (30 + 4) + (20 + 3) \\ &= (30 + 20) + (4 + 3). \\ &= 50 + 7 = 57 \end{aligned}$$

$$\begin{aligned} \text{ama } 34 + 23 &= 57 \text{ ama waa} \\ 30 + 4 \\ + 20 + 3 \\ \hline 50 + 7 = 57 \end{aligned}$$

$$\begin{aligned} \text{Sida ugu dambayn } 34 \text{ iyo } 23 \text{ la isgu geynaaya waa} \\ 34 \\ + 23 \\ \hline 57 \end{aligned}$$

Casharka 28aad

Ujeeddo :

DHIGIDDA ISUGEYNTA LABADA GOD OO AY SOO GALAYSO SIDASHADU

Qalab : Tusaha qiimaha rugta ee ku tilmaaman barasho kaaliyayaasha.

1. Fiiri tusaalahan :

$$\begin{array}{l} \text{Isugee } 48 \text{ iyo } 16 \\ 48 = 40 + 8 \\ 16 = 10 + 6 \end{array}$$

$$50 + 14 = 64$$

$$50 + 14 = (50 + 10) + 4 = 64.$$

Habka la raacayaa waa:

- (i) tiradii kasta u kala qaad tobnaad iyo koowaad.
- (ii) Soo saar wadarta koowaadka iyo tobnaadka.
- (iii) Isku ururi kaddibna wadarta soo saar.

Xusuus : 10 koowaad oo loo rogo 1 tobnaad ayaa lagu magacaabaa sidasho.

2. Tusaalaha buugga ardayga fiiri.

- (i) Marka hore isu gee kowyada $(5 + 7)$.
- (ii) Kowyada dhig wixii tobno ka soo baxana sido. Hadha marka 5 iyo 7 la isu geeyo waxay isku noqonayaan 12. 2da hoos dhig khaanadda koowaad, 1-dana sido.
- (iii) Marka xiga isu gee tobnaadka kuna dar wixii tobnaad ad sidatey.

Casharka 29aad

Ujeeddo :

**IN LA DHIGO QIIMAH A RUGTA BOQOLAALKA
IYO ISUGEYNTA TIROOYIN AY QAARKOOD YIHIIN**

**SADDEX GOD
Warsiin Guud :**

Tallaabocyinka casharkan dhigistiisa loo raacayaa waxay la mid noqonayaan kuwii loo raacayay dhigistiisa isugeyntooda.

Ogow : Naqtiiñ gaaban oo casharka 7aad, 8aad waa lagama maarmaan.

Cutubka Afraad

Kalagoynta

Casharka 30aad

Ujeeddo :

**IN LA BARO FIKRADDA KALAGOYNTA
IYO WEEDHAHOODA**

Alaabta loo baahan yahay : qalmaan, buugaag, dhagxaan, arday, iwm.

- 1) Adoo isticmaalaya qalabka aan kor ku soo sheegnay, ka soo qaad in aad 6 qalin ku bilowday. Lixda qalin miis saar. Arday ardada ka mid ah ka codso in uu laba qalin ka qaado qalmaantaa. Weydii waxa soo haray.
- 2) Haddana 8 dhagax miiska saar. Sidii oo kale arday ka codso in uu saddex dhagax ka qaado. Weydii waxa soo haray.
- 3) Markaad siiso dhawr tusaale oo la mid ah labada tusaale oo aynu kor ku sheegnay waa in halkaa ardadu ka barataa fikradda ah ka qaad in ay la mid tahay summadda kalagoynta.
- 4) Ka bacdi qor weedhaha kalagoynta ee tusaalooyinkii aad samayseen, sida :
lix qalin baa miiska saaran. 6
ka qaad labo. 6 - 2
maxaa haray ? 6 - 2 = ?

$6 - 2 = ?$ ama $6 - 2 = 4$ ayaa loo yaqaan weedha kalagoynta.

Mar haddii aan ardada loogu tala gelin in ay wax badan akhriyaan adaa lagaa filayaa in shaqada badankeeda aad qabatid. Ilaa ay ujeeddada ardadu garato waa inaadan buuggooda ku degdegim.

Fikradaha ka qaadashada ee aan kor ku soo sheeg-nay buugga ardayga waxay kaga jirtaa bogga 91aad ilaa 98.

- 5) Afarta tusaale ee ugu horreysa waa in aad sidii qodobka koowaad iyo labaad u raacdhaa. Tusaale walba waxaad ku aragtaa laba weedhood oo kalagoyn ah. Waa in aad mid walba siday ku timi u muuji-saa.
- 6) Afarta tusaale inta ka dambeysa ilaa bogga 94aad waa laylisyo.
- 7) Bogga 95aad iyo bogga 96aad waa tusaalooyin muujinaya in weedhaha kalagoyn ta ee sida :
$$\begin{array}{r} 9 - 8 = ? \\ \hline ? \end{array}$$

Laakiinse 9 ayaa badanaaba la isticmaalaa. Waayo

$$\begin{array}{r} - 8 \\ \hline ? \end{array}$$

marka tirada la kala goynayo ay rug ka badato, hab-ka kale waa adag yahay.

- 8) Layliyada $? = 2 - 2$, $5 - 5 = ?$ $9 - 9 = ?$ waxay ardada u diyaarinayaan isweydaarka isugeynta.

Casharka 31aad

Ujeeddo :

IN LOO DHIGO KALAGOYNTA OO U MUUQATA KA HORJEEDAHA ISUGEYNTA

Alaabta macallinku isticmaala yo : qalmaan, buugag, dhagxan, arday, iwm.

Dhinaca ka horjeedaha isugeynta markaynu ka eegno kala goyn ta tusaalooyinka baa lagu gelin karaa ardada, sida : ku sawir goobo weyn meel bannaan oo dhulka ah. Ku diyaari shan (qalimo ama buugqag) goobada dhexdeeda. ka codso in arday uu ku daro saddex shay oo kale. Qor weedhaha isugeynta.

$$5 + 3 = 8$$

Weydii ardada in ay weedha si kale u qori karaan ($3 + 5 = 8$) Hadday keeni waayaan, ku celi tusaalaha adoo ku bilaabaya saddex shay kuna daraaya shan shay.

Ardada arday ka mid ah weydii in uu ka qaado saddex shay urukii siddeedda ahaa. Warso waxa haray. Weedhaha ku qor sabuuradda.

$$8 - 3 = 5$$

Ururkii siddeedda ahaa mar labaad suubi. Wuxaad u sheegtaa ardada in aad rabtid in saddex shay ay ku haraan goobada. Midkood weydii in uu ka qaado dhowr shay ilaa inta ay ku harayso ururka saddex. Weydii intuu ka qaaday. Qor weedhaha $8 - 5 = 3$.

Adoo ururro kala jaad ah qaadanaya, u muuji afarta wedhood mar walba, sida :

$$\begin{array}{l} 2 + 3 = 5 \\ 5 - 2 = 3 \end{array}$$

$$\begin{array}{l} 3 + 2 = 5 \\ 5 - 3 = 2 \end{array}$$

Ku gargaar, iyagoo ku cayaaraya ururro kala geddisan, siday u dhisi lahaayeen weedhaha kor ku qoran.

Buugga ardayga tusaalooyin badan oo fikradda muujinya ayaa ku yaal. Eeg bogga 99.

- 1) Labada tusaale ee u horreeya waxaad aragtaa in ay mid waliba leedahay weedh kalagoyn ah oo qura. Sababta oo ah biirooyinka ayaa isku mid ah. Inta kale mid waliba waxay leedahay laba weedhood oo kalagoyn ah.

- 2) Tusaalahaa afaraad iyo kan shanaad, weedhahooda kalagoynta, labaa eber ku siinaya. Kuwaas oo ah, $4 - 4 = ?$ iyo $3 - 3 = ?$ Halkaa waxaa laga rabaa in ay u diyaarsamaan isweydaarka isugeynta;
- 3) Dhawr tusaale markaad tustid, inta kale layli ahaan ha uga shaqeeyeen, iyagoo buuxinaya meelaha madhan.

Casharka 32aad

Ujeeddo :

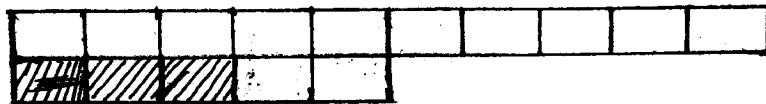
IN LA BARO KALAGOYN LABA GOD AH OO AAN AMAAHASHO LAHAYN

Alaabta macallinku isticmaalayo : waraaqo laydiyo u qaybsan, qalmaan iyo ulo.

1. Sabuuradda weedh ku qor sida : $16 - 4 = ?$ Arday ka codso in uu 6 ulood miiska ku diyaariyo. Tobani ha isku xirnaadeen. Arday kale afar ha ka qado. Immisaa haray ? Toban iyo Labo.

Weedha dhammay $16 - 4 = 12$.

- 2) Sabuuradda ku sawir shaxanka hoos ku muujisan. Waa 15 labajibbaarane.



Weydii : Immisa labajibbaarane ayaa shaxanku muujinayaa ? 15. Madoobay saddex shanta hoose ka mid ah. Maxaa soo haray haddaynu saddexdaa ka qaadno ? 12.

Weedha kalagoynta sabuuradda ku qor.
 $15 - 3 = 12$

- 3) Dhawr tusaale markaad muujisid oo kuwan la mid ah, buugga ardada bogga 102 fur. Tuusaalaha kuwaa la mid ah ayaa ku yaal. Sida tusaalaha aad furfurtay u furfur kuwa ka mid ah. Waxaa la filaya waraaqo aad u soo diyaarisay oo shaxannada leh in ardaydu ku cayaaraan.

Ka bacdi u dir layliga bogga 103 (1 – 4).

- 5) Haddana tusaalaha u horeeya oo kale suubi. Mar kan weedhu ha ahaato $24 - 12 = \square$ arday ka codso in uu miis dushii ku diyaariyo 2 tobnaad iyo afar kowaad. Arday kale ka codso in uu ka qaado hal tobnaad iyo 2 kowaad. Immisa ayaa soo haray ? 12 . Dhammay weedha $24 - 12 = 12$.
- 6) Dhawr tusaale sii adoo ulaha isticmaalaya.
- 7) $24 - 12 = 12$ habka kale oo loo qori karo waa sida tusaalahsan.

$$\begin{array}{r} 24 \\ - 12 \\ \hline 12 \end{array}$$

- 8) Ugu dambeysta, waa in ay la soo baxaan in kowaad ka la kala goynayo, tobnaadkana la kala goynayo. Hadday arki waayaan ku barraruji.
- 9) Layliga $5 - 10$ u dir ardada ha ka shaqeeyeene.

Casharka 33aad

Ujeeddo:

IN LA BARO KALAGOYNTA AMAAHASHADA LEH

Ilaa imminka ardada waxaynu soo barnay kalagoyn aan amaahasho lahayn.

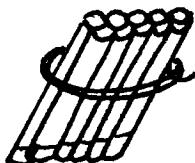
- 1) Marka loo dhigayo weedhaha $15 - 8 = ?$
 $12 - 3 = ?$ iwm. waxaa lagama maarmaan ah in ra'yiga amaahashada la gelinsiyo. Sida ugu habbon oo ra'yigaa lagu bari karo waa tusaalooyinka oo masalo lagu dhigo.

Matalan weedha $15 - 8 = ?$ waxaad oran kartaa :
waxaan haystaa shan iyo toban qalin. Haddaan siiyo Cabdi
sideed ka mid ah, immisa ayaa ii soo haray ?

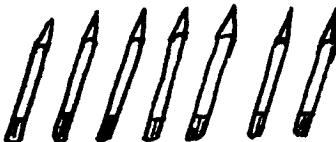
$$15 - 8 = 7.$$

Si masalada loo furfuro waa in baruhu ardada tusaaloo-
yin ugu muuijyaa sida soo socota :

Masaladan waxaynu ku häysanaq hal xirmo oo tobantah
iyo shan kale oo furan.



Qalmaantaan haysto



Intaan Cabdi Sünayo

Qalmaantaan Cabdi siinayo wey ka bådan tahay shanta qalin ee ii furfuran. Haddabå waq in aan furfurtaa xirmada tobanka ah. Tobanka siddeed ka mid ah waa in aan Cabdi siiyaa. Waxaan haystaa, labo iiga soo haray tobankii iyo shantii furfurnayd, toddoba.

Tobnaad	Kowaad	Tob.	Kowaad

= 7

Tobanka markaynu ku darayno shanta ayaa xisaab ahaan
loo yaqaanaa amaahasho.

Tusaalahaha waxaynu dib u magacawnay 15 in ay la mid
tahay $10 + 5 = 15$, $5 + 10 = 15$ kana goynay siddeed
 $(5 + 10) - 8 = 5 + (10 - 8) = 5 + 2 = 7$.

- 1) Adoo isticmaalaya tusaalooyin dhawr ah, ku daadal in ay si fiican u gartaan sida tirada 10 ilaa 19 looga goynaayo tirada 1 ilaa 9.
- 2) Si kalagoynta loo gaarsiiyo tirada ka badan 19, waa in ay bartaan intaa xirmood oo min tobantah oo ku jirta tiradaa. Matalan waxaad ka soo qaadaa in aad rabtid in ay ka shaqeeyaan masalada 45 — 27.

Marka hore waa in macallinku ku muujiyaa in 45 tahay afar xirmo oo min tobantah ah iyo shan xabbo. 27 na ay tahay laba xirmo oo min tobantah ah iyo toddoba xabbo. Waa in macallinku xasuusiyaa in aan shan laga qaadi karin toddoba. Waa in macallinku afarta xirmo mid ka mid ah furfuraa kuna daraa shanta. Halkaa waxaa ka soo baxaya saddex xirmo oo min tobantah ah iyo tobantah iyo shan xabbadood. Tobantah iyo shanta toddoba ka qaad waxaa soo haray siddeed. Waxaa soo haray hal xirmo oo tobantah ah. Waxaa soo haray marka laysu geeyo waa tobantah iyo siddeed.

TABNAAD	KOWAAD	TABNAAD	KOWAAD
			* *
	→		* *
10	+ 8 = 18		

Tallaaba labaad waa in ardayga lagu tusaa dariiqada dheer ay xirmayntu leedahay. Sida :

$$\begin{array}{rcl}
 45 & = & 40 + 5 = 30 + 15 = \\
 - 27 & = & 20 + 7 = 20 + 7 = \\
 \hline
 & & \\
 & & 10 + 8 = 18
 \end{array}$$

Marka saddexaad waa in macallinku u raacahaan dariiqada ugu dambaynta loo qoraayo. Sida :

$$\begin{array}{r}
 45 \\
 - 27 \\
 \hline
 18
 \end{array}
 \qquad
 \begin{array}{r}
 ③ \\
 4 \\
 - 2 \\
 \hline
 1
 \end{array}
 \qquad
 \begin{array}{r}
 ⑯ \\
 7 \\
 \hline
 8
 \end{array}$$

Xarriijimaha afarta iyo shanta ku yaal iyo tirada ku kor qoran oo goobooyinka ku jira waa shaqada maskaxda laga qabanayo.

Qodobka hore ee muujinaya 10 ilaa 19 oo wax laga goynayo markaad istiraahdid way barteen, buugga ardayda bogga 105, 106 laylisyada ku jira laba ilaa saddex uga shaqee inta kalena ardadu ha suubiso. Bogga 107 wuxuu muujinayaa habka fidsan. Tusaalooyinka ku jira bogga tus. Dabadeedna laylisyada ku jira habkaa ha kaga shaqeeyeen.

Qodobka labaad, layligiisu wuxuu ku yaalaa bogga 108 ee buugga ardayga. Bogga 109 wuxuu muujinayaa sansaanka fidsan. Tusaalooyinka ku jira bogga tus. Dabadeedna layliyada habkaa ha kaga shaqeeyeen. Bogga 16 iyo 17 waa layli guud.

BARASHO

KAALIYEYAALKA

IYO

CIYAARAH

BARASHO KAALIYAYAAL

1. TIRSIYO

Arday kastaa waa in uu haystaa waxyaabo uu wax ku tiriyo marka uu tirooyinka baranaayo. Wuxa jira waxyaabo badan oo ay ardaydu tirsyo ka dhigan karaan:

Quruurux, badhanno, ulo, kuul, xabuub galley, digir, tarraqyo, baakooyin sigaar oo maran, iwm.

Baraha ama ardayda naftoodu waxay googoosan karaan xaashi adag oo ay ka dhigi karaan labajibbaaraneyaal, gooboo-yin, saddexagal, laydiyo, xiddigo iyo qaabab kale.

Tirsiyadu waa barasho kaaliyayaasha fasalka koowaad ugu mihiimsan, markaa, baruhu waa in uu hubiyaa in arday kastaa haysto tirsyaal ku filan, ugu yaraan tobant shay. Tirsyaal marka ay yihiin qaababka looga baahan yahay deris, waxa lagu tilmaamay kooxdii dhagaxda ahayd.

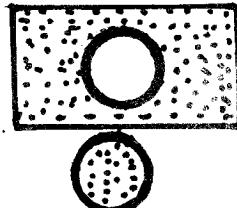
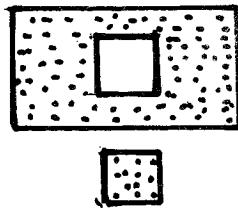
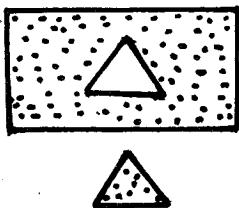
2. ISU AADDINTA GOOGO'YADA

Alaabta loo baahan yahay.

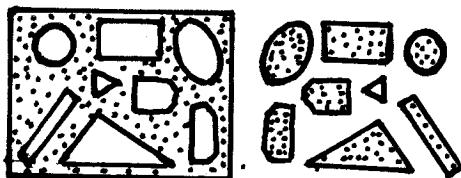
Waraaq, xaashi adag, maqas iyo makiinad.

Sida loo sameeyo

1. Ka googoo qaabab kala duwan xaashi adag oo ha ahaato (15sm × 15sm) sida:



2. Kaalmiyahan waxa laga samayn karaa xaashi adag oo weyn oo ah 50sm × 63sm. Ka googoo qaabab kala duwan sida hoos ku muujisan oo kale:



3. Xaashiyo kale oo laisku aaddiyo waxa laga samayn karaa xaashiyo yaryar sidan hoose oo kale:



Sida loo isticmaalo

Isku qas xaashiyaha dabadeedna weyddii ardada in ay he-laan qaabka saxa ah ee ku aaddan xaashi kasta.

Ogow: Xaashiyaha laisku aaddinayo oo dhammi waxay ardayda ka caawin akhriska iyo xusuusashada qaababka.

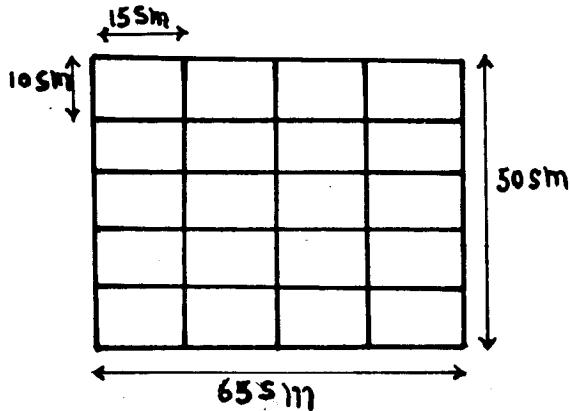
3. XAASHIYO ASTIRO

Alaabta loo baahan yahay

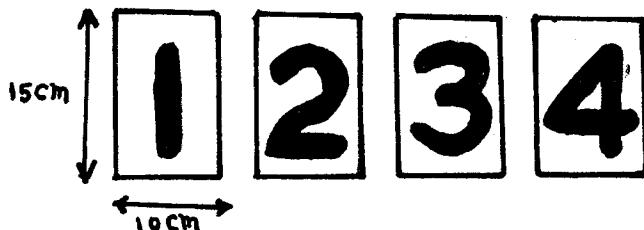
Xaashi adag.

Sida loo sameeyo

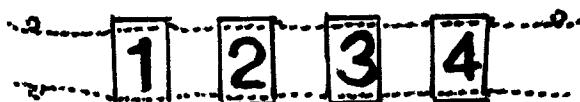
Xaashida adag waxaad ka goysaa **xaashiyo** yaryar oo mid-diiba tahay $10\text{sm} \times 15\text{sm}$.



Waxaad ku qortaa astirooyin waaweyn, 0 ilaa 9. Astiro kasta waxaad ku qortaa xaashi gooni ah, hana u jirto $2\frac{1}{2}$ sm dusha iyo hoosta xaashi kasta.



Waxaad ka daloolisaa godad dusha iyo hoosta xaashiyaha, dabadeedna dun isugu xir xaashiyaha sida hoos ku muujisan.



Sida loo isticmaalo

1. Si ay uga kaalmeeyaan ardayda xasuusashada astirooyinka.
2. Si ay u noqdaan xarriiqda tirada ee fasalka.
3. Ciyaaraha ku saabsanisku aaddinta.
4. Xaashiyo tiro iyo astiro.

Xaashi kasta dhabarkeeda waxaad ku qortaa ereyga astiradaa. Tusaale ahaan, xaashi 2 ku qoran tahay xaggeeda dambe waxaad ku qortaa LABO. Ardayda tus ereyga, markaa ha qoreen astirada, dadabeedna tus astirada ku taal xaashida xaggeeda dambe.

4. JEEBAB

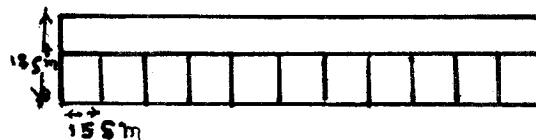
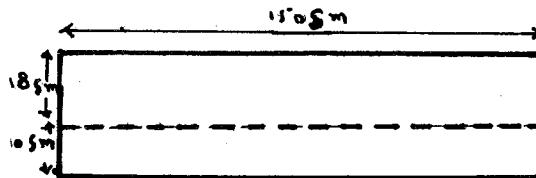
Alaabta loo baahan yahay.

Maro ah 150sm X 28sm; irbbad iyo dun.

Sida loo sameeyo

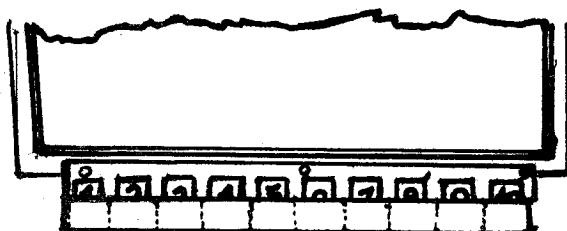
Marada isugu laab sida sawirka sarreeya oo kale. Waxaad

ka toshaa meelaha xarriiqda googo'an leh sida sawirka hooseeyya ku muujisan, si ay toban jeeb u sameyso.



Sida loo isticmaalo

Ku dheji jeebabka sabbuuradda cidhifkeeda ama meel kale oo ku habboon oo fasalka ka mid ah. Xaashiyaha astiro kasta waxaad ku ururin jeeb. Waa lagama maarmaan in aad jeebabkaas ku ururiso xaashiyahaas as tiroyinka.



5. XAASHIYO SAWIR LEH OO ISUGEYNTA IYO KALAOGYNTA LAGU BARTO

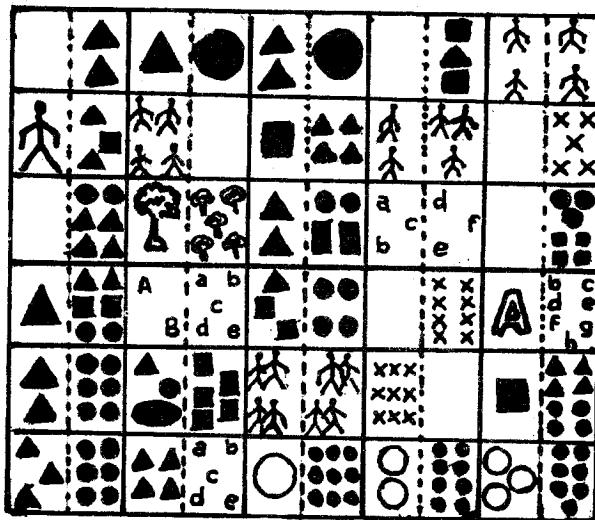
Alaabta loo baahan yahay.

Xaashi adag, qalin rasaas.

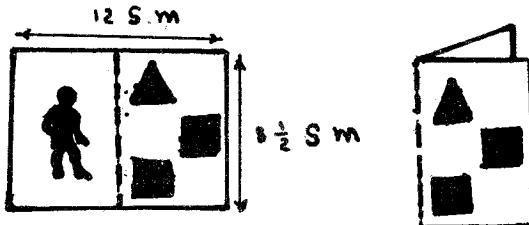
Sida loo isticmaalo

1. Xaashi adag waxaad u qaybisaa laydiyo ah $12\text{sm} \times 8.5\text{sm}$ sida shaxanka hoos ku muujisan:

2. Ku samee sawirro laydiyada dhexdooda sida shaxanka ku muujisan. Waxaad samayn kartaa sawirro kala geddisan, laakiin xaashi kasta in isle'eg waa in ay ku taal.

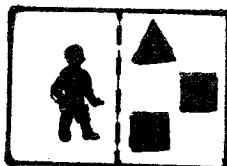


3. Soo goo xaashiyaha adoo raacaya xarriiqda aad u madow, dabadeedna iskaga laab meesha ay xarriiqda googo'ani marayso. Xaashiyuhu waa in ay u ekaadaan sidan oo kale:



Sida loo isticmaalo.

1. Qoridda weedh isugeynteed:
macallinka ayaa kor u qaadaya.

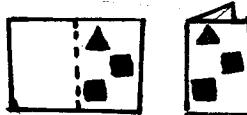


Ardayda ayaa isu geynneysa tirooyinka ururrada ku muujisan xaashida dabadeed waxay qorayaan weedhan:

$$1 + 3 = 4$$

2. Qoridda weedh kalagoyn teed:

Macallinka ayaa xaashi kor u qaadaya sida sawirka A ku muujisan, dabadeedna wuxu isugu laabayaan sida sawirka B ku muujisan.

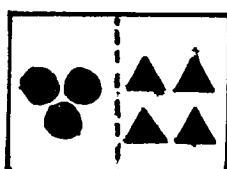


Ardaydu waxay ka tuurayaan wadarta labada urur, ururka bidixda kaasoo ah ka dib loo laabay, waxayna qorayaan weedhan:

$$4 - 1 = 3$$

3. Isu aaddinta xaashidan iyo xaashiyaha astiro.

Macallinka ayaa xaashidan sare u qaadaya.



Ardayda ayaa xaashidan sare u qaadaya.

$$\boxed{3 \times 4}$$

4. Ciyaar lagu ogaanayo sida isugeynta iyo kalagoynta loo bartay

Macallinkaa xaashi kor u qaadaya.



Wuxuuna weyddiinayaa:

«Immisa ayaad aragtaan?» (Shan).

Macallinka ayaa xaashida sidan u laabaya:



Wuxuuna weyddiinaya:
 «Imminka immisaad aragtaan?» (labo).
 «Immisaan arkaa?» (saddex).

6. XAASHI SAWIR LEH OO ISKUDHUFASHADA LAGU BARTO.

Sida loo sameeyo

1. Xaashi adag waxaad u qaybisaa sida hoos loogu muujiyey dabadeedna waxaad ku sawirtaa alaaboo joogtax iyo dhi-nactax u taalla oo u taagan:

$1 \times 1, 1 \times 2, 1 \times 3, 1 \times 4, 1 \times 5,$ ilaa 10×10

12sm					
8sm	0	00	000	0000	00000
	Δ Δ	Δ Δ Δ	Δ Δ Δ	Δ Δ XX	Δ Δ Δ XX
	Δ Δ	Δ Δ	Δ Δ Δ	Δ Δ XX	Δ Δ Δ XX
	0 0	0 0 0	0 0 0	0 0 XX	0 0 0 XX
	0 0	0 0 0	0 0 0	0 0 XX	0 0 0 XX
	0 0	0 0 0	0 0 0	0 0 XX	0 0 0 XX
+	+	+	++	++ +	+++ 00
+	+	+	++	++ +	++ + 00
+	+	+	++	0 0 00	++ + 00
+	+	+	++	0 0 00	++ + 00
+	+	+	+ X	++ XX	++ + XX
+	+	+	+ X	++ XX	++ + XX
+	+	+	+ X	++ XX	++ + XX
+	+	+	+ X	++ XX	++ + XX

2. Xaashiyo u googoo dabadeedna xaashi walba waxaad dhabarkeeda ku qortaa weedha iskudhufashada ee muujinaya sa dhinactax iyo joogtax. Matalan:

Δ Δ Δ	2x3
0 0	3x2
0 0	
+++ +	4x4
+++ +	
0 0 00	
0 0 00	

Sida loo isticmaalo.

1. In lagu baro dhinactax iyo joogtax.

Macallinka ayaa kor u qaadaya xaashi matalan :

Dabadeedna wuxuu su'aalayaa:

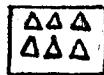
Waa immisa dhinactax? (3)

Waa immisa joogtax? (4)

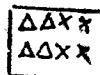
Waa isku immisa? (12)

x x o o
x x o o
x x o o

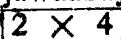
2. In lagu layliyo iskudhufashada. Wawa loo samayn karaa macna ciyaareed. Macallinka ayaa kor u qaadaya xaashi dabadeedna dhaqso u qarinaya. Ujeeddadu wawa weeye in la ogaado dhaqsaha ay ardaydu ku garanayso alaabada ku jirta xaashi walba. Matalan macallinka ayaa kor u qaadaya xaashida.



Ardaydu waa in ay markaa sheegaan alaabta ku taal xaa-shidaa. Dhinac kale ardaydu ha tuseen hubaasha isku-dhufasda ama jawaabta iyagoo kor u qaadaya xaashida astirada ee ku habboon. Matalan, macallinka ayaa kor u qaadaya xaashidan:



Ardayduna waxay ku jawaabayaan iyagoo kor u qaadaya:



7. XAASHIYO ISUGEYNEED

Alaabta loo baahan yahay

Xaashi adag.

Sida loo sameeyo

1. Xaashi adag u qaybi laydiyo, dabadeedna wadaraha ugu qor sida shaxanka hoose ku muujisan.

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

2. Xaashiyo yaryar u qaybi xaashida weyn adoo raacaya xariiqahaad samaysay.
3. Ku qor wadarta laylis kasta xaashida xaggeeda dambe. Tu-saaale ahaan:

2 + 3

5

3 + 4

7

hore

gadaal

hore

gadaal

Sida loo iscticmaalo

1. Isugeynta oo lagu laylyayo.

Waa in koox yar oo arday ahi ay sameeyaan. Horjooguhu ama arday ama macallinku xaashi sare ha u qaado.

Markaa kolba arday waa in uu ku dhawaaqaa wadarta sheegaysa. (Ogow: Jawaabtu xaashida xaggeeda dambe ayay ku taal, markaa horjooguhu had iyo jeer wuu yaqaan jawaabta saxa ah).

2. **Qoysas isugeyneed**

Horjooguhu xaashi kor ha u qaado. Ardayda kooxdaasi ha qoraan qoysaska wadarta xusan. Matalan:

Horjoogaha ayaa sare u qaadi : 3 + 4. Ardaydu waa in ay qoraan:

$3 + 4 = 7$

$4 + 3 = 7$

$7 - 3 = 4$

$7 - 4 = 3$

Ardayga ugu hor dhammeeya isaga oo aan qalad samayn ayaa horjooge noqonaaya.

Xaashiyaha kalagoynata, iyagana sidaa oo kale ayaa loo samayn:

Xaashiyo jiifa

5 - 2

3

hore

dagaal

Xaashiyo taagan

5
- 2

3

hore

dagaal

8. XAASHIYO ISKUDHUFASHO

Sida loo sameeyo

1. Xaashiyo waaweyn u qaybi laydiyo midkiiba yahay $6\text{sm} \times 4\text{sm}$, dabadeedna ku qor hubaalaha min 1×1 , 1×2 , ilaa 10×10 sida hoose:

5 sm				
4 sm	1x1	1x2	1x3	1x4
	2x1	2x2	2x3	2x4
	3x1	3x2	3x3	3x4
	4x1	4x2	4x3	4x4
	5x1	5x2	5x3	5x4
				5x5

2. Xaashiyaha googoo oo taranyada ku qor xaashi walba ga-daasheeda. Matalan:

2 × 3	6	3 × 4	12
hore	gadaal	hore	gadaal

Sida loo isticmaalo

1. Iskudhufashada oo lagu laylyayo.
Horjoogaha ayaa kor u qaadaya xaashi dabadeedna ar-dayda ayaa sheegaya taranka.
2. Sawir iyo iskudhufasho oo laisku aaddinaayo.
Horjoogaha ayaa kor u qaadaya xaashi iskudhufasho, dabadeedna waa in arday kor uqaadaaxaashi sawir leh oo tu-saysa hubaashhaa.

8. XAASHIYO JAJAB

Sida loo sameeyo

				$\frac{2}{3}$
$\frac{1}{2}$	$\frac{2}{2}$	$\frac{1}{3}$	$\frac{2}{3}$	
$\frac{3}{3}$	$\frac{1}{4}$	$\frac{2}{4}$	$\frac{3}{4}$	$\frac{4}{4}$
$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{4}{5}$	$\frac{5}{5}$

Sida loo isticmaalo

Macallinka ayaa kor u qaadaya jajab dabadeedna ardayda ayaa akhriyeysa jajabka ku qoran xaashida. Matalan, haddii macallinku kor u qaado

$$\begin{array}{c} 3 \\ \hline 4 \end{array}$$

Waa in ardaydu yiraahdaan, «Saddex-afreed».

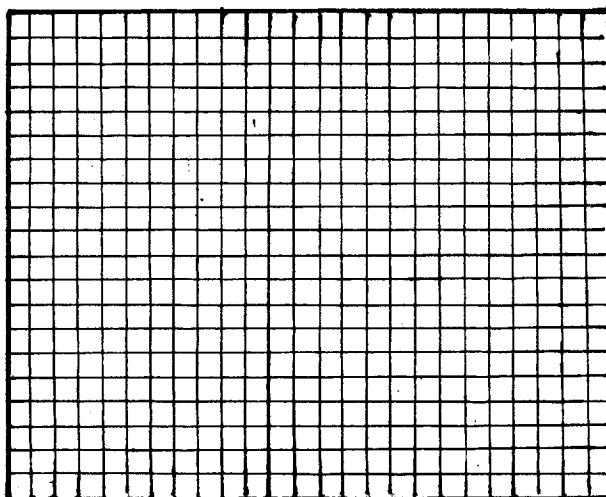
9. FALLIIHQYADA TIROOYINKA

Alaabta loo baahan yahay

Xaashi adag.

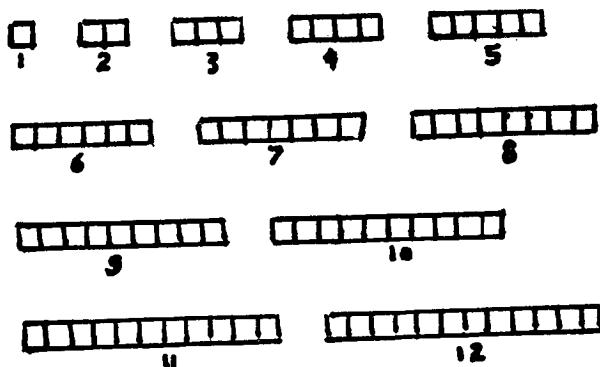
Sida loo sameeyo

1. U qaybi xaashi adag labajibbaaraneyaal ah



$$2 \frac{1}{2} \text{ sm} \times 2 \frac{1}{2} \text{ sm}$$

2. Sidan oo kale falliiqyada ugu googoo.

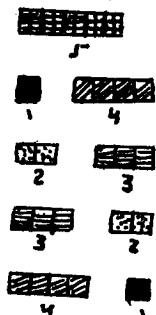


Falliiqyada midab baa loo yeeli karaa, si uu midab waliba tiro ugu taagnaado. Matalan, guduud wuxuu u taagnaan falliiqa labo, cagaarna falliiqa saddex, madawna falliiqa afar, iwm. Waxaad ku qori kartaa falliiq walba tirada uu u taagan yahay.

Sida loo isticmaalo

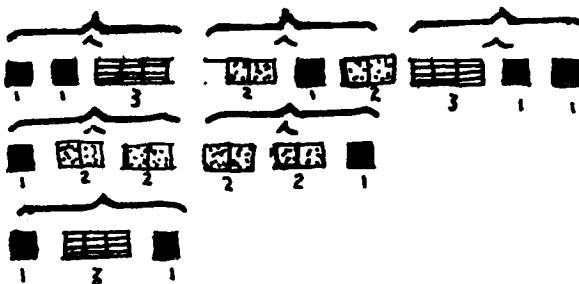
1. Isugeynta in lagu baro.

b) Dhis tirada shan adoo isticmaalaya laba falliiq. Immisa siyood baad u dhisi kartaa.



5	
5	0
1	4
2	3
3	2
4	1

- t) U dhis tirada 5 inta siyood ee suurtoobaysa adoo isticmaalaya saddex falliiq.



2. Cabbiraadda.



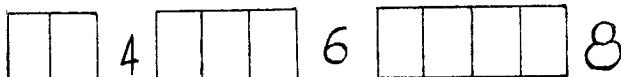
«Immisa labajibbaarane ayuu buugaagg dherer le'eg yahay? Shan in yar ayuu ka badan yahay.

Ogow: Falliiqa afar labajibbaarane lihi dhererkisu waa 10sm, ka 8 lihina waa 20sm. Laakiinse looma baahna in ardayda loo sheego amauwneyddiyo dhererka falliiqyada.

3. In lagu dhigo iskudhufashada.

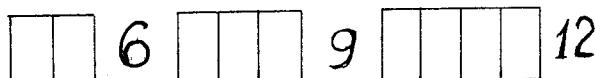
- b) ha u taagnaato 2.

Immisa ayuu u taagan yahay kii walba ee hoose ku yaal?

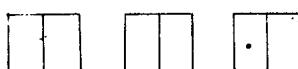


- t) Bal imminka ha u taagnaato 3

Immisa ayuu u taagan yahay kii walba ee hoose ku yaal?



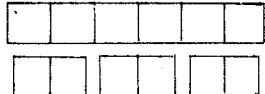
- j) Waa immisa 3 labaad?



$$\begin{aligned} & \text{3 labaad waa 6} \\ & 3 \times 2 = 6. \end{aligned}$$

4. In lagu dhigo isuqaybinta

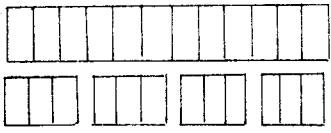
6 Waa immisa labaad?



6 waa 3 labaad.

$$6 \div 2 = 3.$$

12 waa immisa saddexaad ?



12 waa 4 saddexaad

$$12 \div 3 = 4.$$

5. In lagu dhigo jajabyada.

b) Haddii uu yahay 1

i) Waa immisa ? ($\frac{1}{2}$)

ii) Waa immisa ? ($\frac{1}{2} + \frac{1}{2} = 1$)

t) Haddii uu yahay 1

i) Waa immisa ? $\frac{1}{3}$

ii) Waa immisa ? $\frac{2}{3}$

iii) Waa immisa $\frac{1}{3} + \frac{2}{3}$? $\frac{1}{3} + \frac{2}{3}$

$$\therefore \frac{1}{3} + \frac{2}{3} = 1$$

j) Haddii uu yahay 1,

i) Waa immisa ? ($\frac{1}{2}$)

ii) Waa immisa $\boxed{\quad}$? $\frac{1}{4}$

$$\text{ii) Waa immisa } \frac{1}{4} \text{ iyo } \frac{1}{4} ? \quad \frac{1}{4} = \frac{1}{4}$$

$$\therefore \frac{1}{4} + \frac{1}{4} = \frac{1}{2}$$

10. TUSE EREY-TIRO.

Alaabta loo baahan yahay
Xaashi adag.

Sida loo sameeyo loona isticmaalo

Tusahan waa in tallaabo tallaabo loo sameeyaa. Matalan, marka tirada 5 uu baruhu dhigo, waa in uu tusaha ku qoraa:

“● ● ● ● ● 5 Shan”

Marka uu tirada 6 dhigo waa in uu tusaha ku qoraa:

“● ● ● ● ● ● 6 Lix”

Markii walba ee baruhu uu tiro cusub dhigoba waa in uu tusaha ku kor dhigaa. Marka tirooyinka 1 ilaa 11 la dhigo tu-suhu waa in uu sidan u ekaadaa.

•	1 Kow
..	2 Laba
...	3 Saddex
...	4 Afar
....	5 Shan
.....	6 Lix
.....	7 Toddoba
.....	8 Siddeed
.....	9 Sagaal
.....	10 Tobah
.....	11 Tobah iyo Kow

11. XARRIIQDA TIRADA

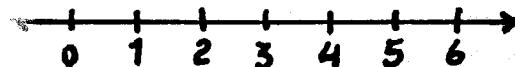
Maxay tahay

Xarriiqda tiradu waxay ka mid tahay kaalyayaalka ugu habboon marka xisaab hoose la dhigayo. Wawa lagu samayn karaa meelo badan sida sabuuradda, miiska ardayda, sibidhka, dhulka fasalka dibaddiisa ah.

Sida loo sameeyo



Dooroo bar, ulana bax eber. Dooroo fogaanta aad doonto oo u taagan 1. Midig u cabbir fogaantaa adoo eber kaga bi-laabaya, halka ay ku dhammaatana 1 u bixi. Fogaantii oo kale cabbir, meesha & ku dhammaatana 2 u bixi. Sidaa ku wad.



Waa laguna maarmaan in tirooyinku fogaan isle'eg isu wada jiraan.

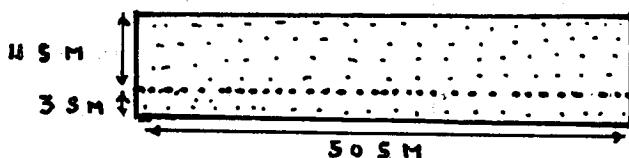
Marka xarriiqdatirada sibidhka lagu sawirayo, dabaashiir isticmaal.

Hadii aad rabto in aad sameyso xarriiq aan dhayal u tirtirmin' waxaad sameyn kartaa dabaashiir sokor leh. Saddex ama afar qaaddo oo sokor ah ku mil bakeeri biyo ah, dabadeedna dabaashiir ku dhex daa muddo saacad ah. Dabaashiirta qoyan marka aad wax ku qortodhawr miridh dabadeed way engegi, dhakhsana loo tirtiri kari maayo. Marka aad rabto in aad tirtirto, waxaad istcmaali maro qoyan.

Xarriiqaha tirada ee kale.

1. Jeeb xarriiqo tiro ah.

Soo qaado falliiq xaashi ah oo 50sm \times 14sm ah. 3sm soo laab, sida hoos ku muujisan.



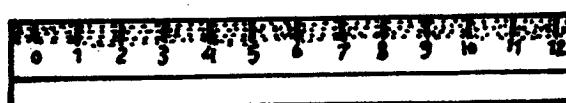
Laab waxaad u qaybisaa jeebab ay xaashiyaha astiroo-yinku geli karaan.



2. Xarriiq tiro oo ah biinanka dharka.



3. Mastaradu waa nooc ah xarriiq tiro oo halbeegyadu si hab-san ugu yaallaan.



4. Kul-beegga qudhijisu waa xarriiq tiro.



Sida loo isticmaalo

Waxay kú muujisan tahay tilmaamaha baraha meel alle iyo meeshii looga baahday.

12. QALABKA QIIMAH A RUGTA.

b) Daasado tirooyin.

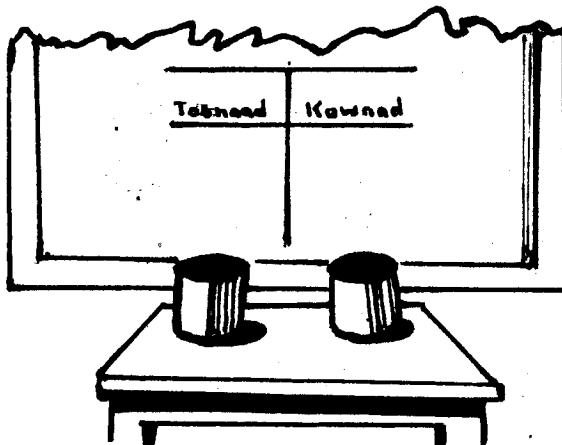
Alaabta loo baahan yahay

Labo daasadood oo meel dhexaad ah, iyo xaashiyo yar-yar oo tilmaantooda lagu qoro.

Sida loo isticmaalo

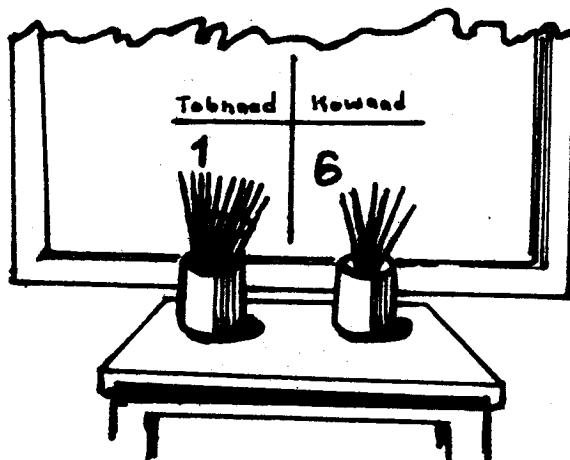
Labada daasadood dhig cidhifka sabuuradda ugu xiga ee

miis, sabuuraddana ku qor tobnaad iyo kowaad sida hoos ku muujisan.

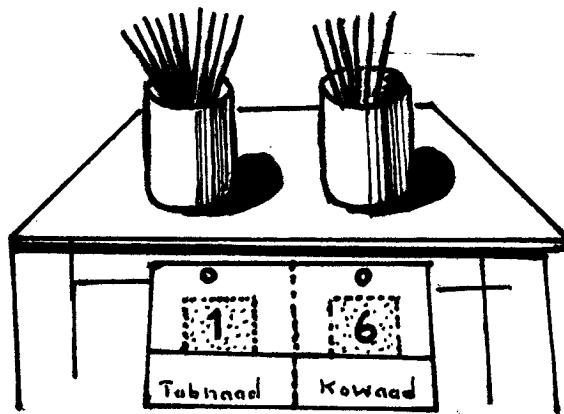


Sida loo isticmaalo.

Daasadaha tirooyinku waa lagama maarmaan marka la baranaayo qiimaha rugta. Tusaale ahaan, haddii aad haysato 16 qori toban waad isku xidhi kartaa oo waxaad ku ridi daasadda tobnaadka, lixda hadhayna waxaad ku ridi daasadda kowaadka. Tirada qoryaha waxaad u qori kartaa adoo isticmaalaya laba god, sida hoos ku muujisan.

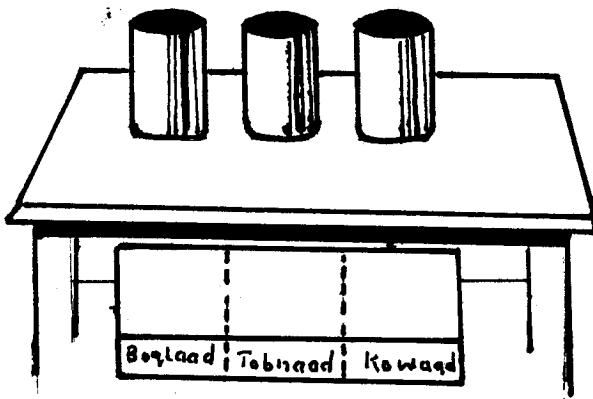


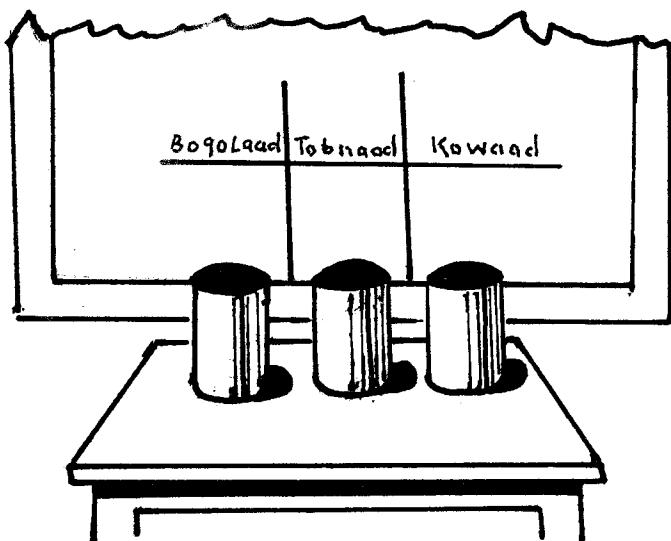
Haddii aad sabuuradda isticmaali kari waydo, waxaad ku adeegsan kartaa jeebab xarriiq tiro ah oo miiska geftinkiisa lagu dhejiyey, sida hoos ku muujisan.



Tani waxay baraysaa ardayga in uu tobnaadka uga fekero hal toban. Taas ayaa ah bilawga fahamka qiimaha rugta.

Waxa qiimaha rugta lagu fidin karaa iyadoo la isticmaalayo shaxannada hoos ku qoran.





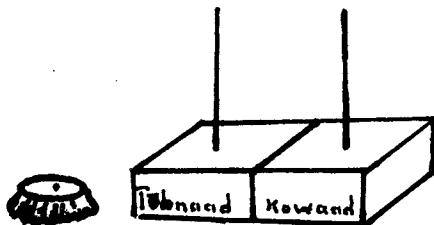
t) «Abakaska».

Alaabta loo baahan yahay

Loox, laba musbaar, fur kookoola, iyo dubbe.

Sida loo sameeyo

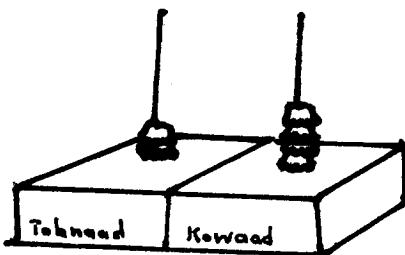
Ka goc ama ka soofee madaxyada laba musbaar oo min 10sm ah, daaadeedna ku dheji loox ah 15sm × 8sm × 2sm. Fogaanta laba musmaar u dhexeysa waa in ay noqotaa 8sm. Ka bidixda ku qor tobnaad, ka midigtana kowaad. Dhexda ka dalooli furarka kookoolaha, sida hoos ku muujisan.



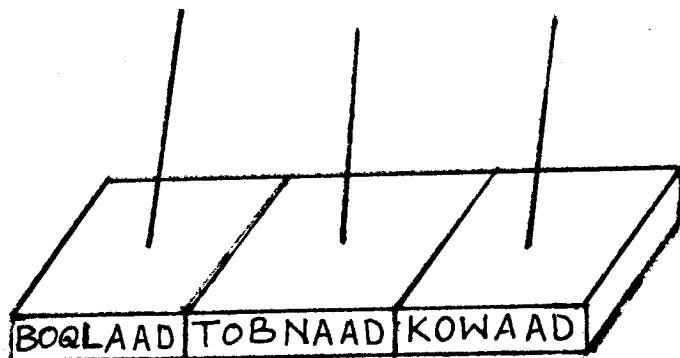
Sida loo isticmaalo

Abakaska waxa loo isticmaalaa sidii daasadaha tirooyinka. Furarka tob naadku waxay tusayaan inta tobnaad, furarka koo-waadcuna waxay tusayaan inta kowaad. Tiro kasta oo 1 iyo 99 u dhaxeysa waxa lagu tusi karaa «abakaska». Tirada sha-

xanka hoose ku muujisan waa 24 (labo tobnaad iyo—afar ko-waad).



Marka qiimaha rugta lagu fidinayo boqlaadka waxa la isticmaali karaa abakaska hoose.



13. SAACAD XAASHI ADAG AH.

Alaabta loo baahan yahay

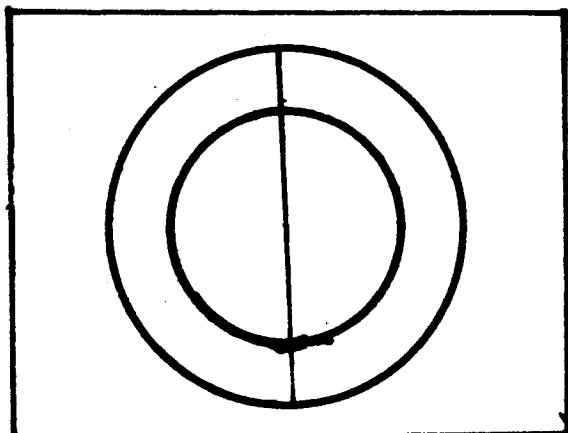
Xaashi adag, loox, xaashi, iwm oo loogu baahan yahay wajiga saacadda. Goobeye, xagal beeg iyo biin.

Sida loo sameeyo

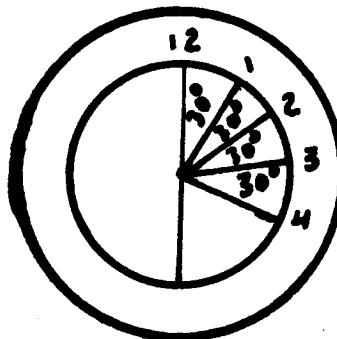
Waa in aad samaysaa saacad u yaraan dhexroorkeedu yahay 30sm oo fasalka oo dhammi isticmaalo. Waliba waxa loo baahan yahay dhawr saacadood oo yaryar oo kooxo yari isticmaalaan. Saacadahana sidan baa loo sameeyaa:

1. Ku dul samee goobo weyn loox ama xaashi aad ugu tala gashay wajiga saacadda. Calaamadee xudunta. Samee dhexroor khafiif ah (waayo, waa la tiri doo-

naa). Goobo kale oo gacankeedu 3sm ka yar yahay tii hore ku dhex samee, sida hoos ku muujisan.



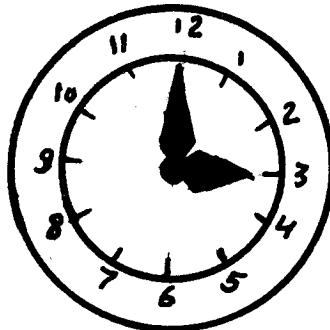
2. Goo, adoo raacaya meeriska goobada sare. Calaa-madee saacadaha adoo ku samaynaya xaglo ah 30° xagal beegga sida hoos ku muujisan.



3. Goo laba «gacmood» mid saacadaha tirisa iyo mid miridhada tirisa. God ka dalooli gacan kasta xaggeeda dambe.



4. Weliba dalool ka samee xuddunta saacadda. Gac-maha ku xidh wajiga saacadda adoo isticmaalaya biin xagga dambe waraaq sigaar lagaga xidhay. Saacadda marka la dhammeeyo samayskeeda waa in uu sidan noqdaa.



Sida loo sameeyo

Eeg tilmaamaha baraha.

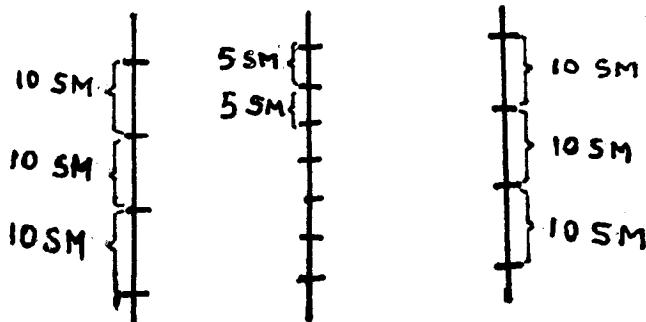
14. **SALLAAN TIRO**

Alaabta loo baahan yahay

Xaashi adag.

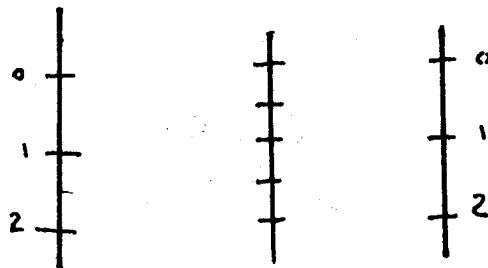
Sida loo sameeyo

1. Ku dul samee saddex xarriijimood oo barbarro ah oo isla fogaan isu jira.

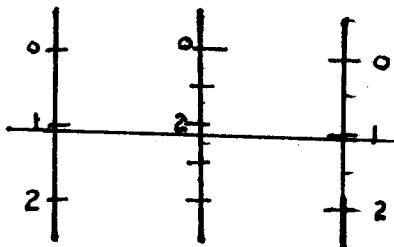


Calaamadee shan qaybood adoo isticmaalayo fogaanta kor ku muujisan.

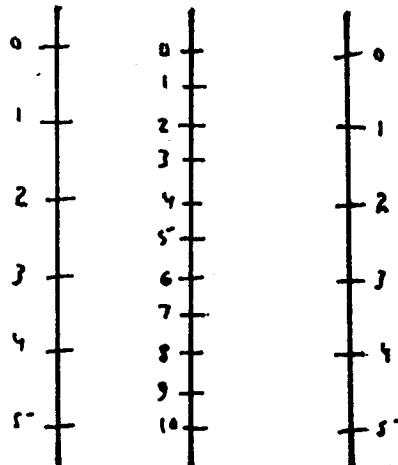
2. Labada xarriijimood ee dibadda ugu qor tirada sida hoos ku muujisan.



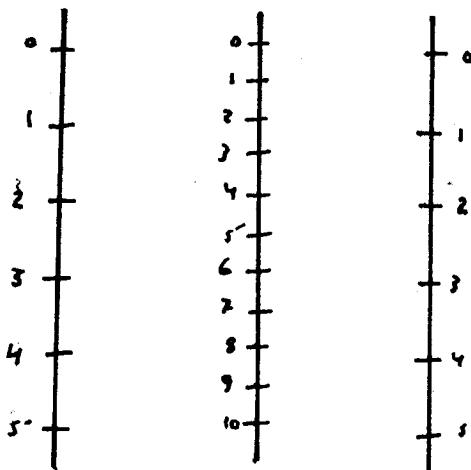
3. Dun gig tirsan ku qabo lammaane kasta oo astirooyin ah oo isku beegan. Wadarta ku qor xarriijinta wadarta labada tiro. Wadarta ku qor xarriijinta dhexe.



Hadda saddexda xarriijimood sidaas ayey u ekaanayaan.



4. Weyddii ardayda astirooyinka ka maqan xarriijinta dhexe (1, 3, 5, 7, 9.). Dabadeedna weyddii xagga lagu qorayo kuwa maqan (1 wuxuu ku qormayaa o iyo 2 dhexdooda, 3 wuxuu ku qormayaa 2 iyo 4 dhexdooda, 5 wuxuu ku qormayaa 4 iyo 6 dhexdooda i.w.m.
5. Marka tirooyinka kisiga ah lagu qoro, salaanku wuxuu u ekaan sida hoos ku muujisan.



Dhulka ama sabuuradda dusheeda.

Astirooyinka la isticmaalayaa way ka geddisnaan karaan kuwa hore loo tilmaamay. Waxa qudha ee loo baahan yahay wa xa weeye, xarriijimuhu fogaanta ay isu jiraan waa in ay isle'e-kaadaan, fogaanta u dhexeysa astirooyinka xarriijimaha dibad-du waa in ay noqota laba laabka fogaanta u dhexeysa astirooyinka xarriijinta gudaha. Tusaalooyin ka mid ahi waxay ku yaa-llaan hoos.

11
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17

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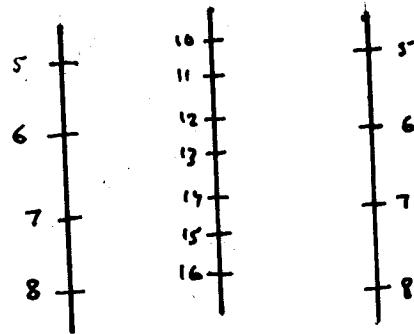
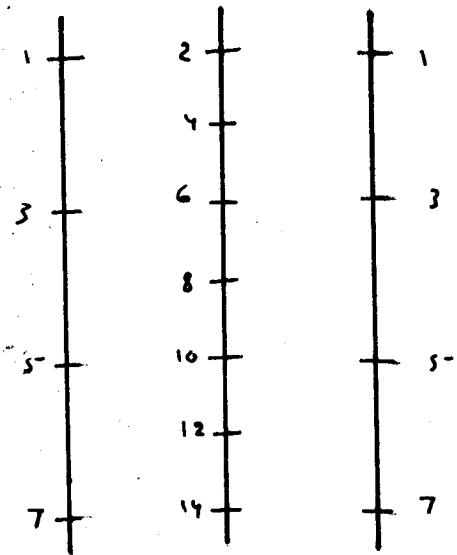
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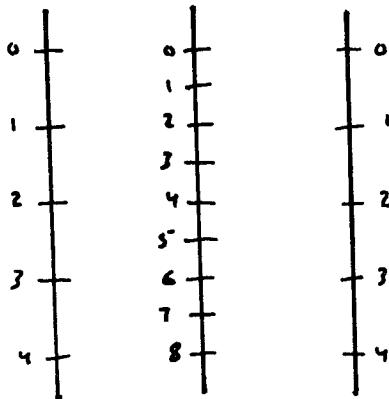
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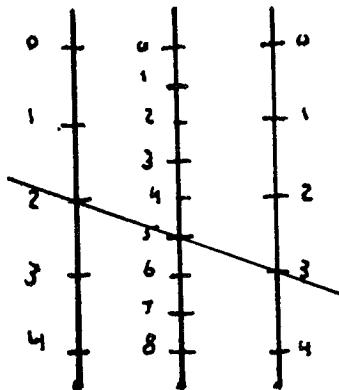


Sida loogu isticmaalo isugeynta iyo kalagoynta

Ka soo qaad in aad rabto wadarta $3 + 4$ ee sallaan ka jaantuska A.

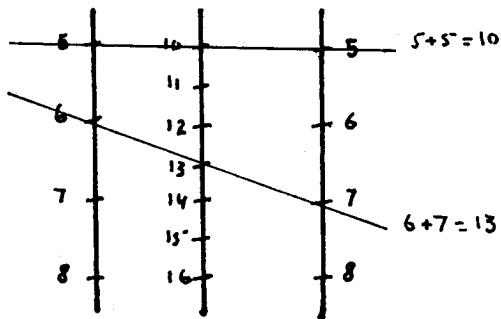
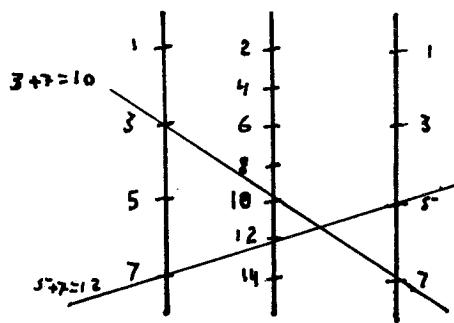
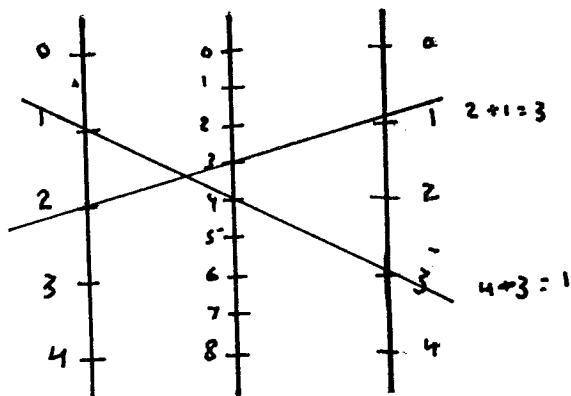


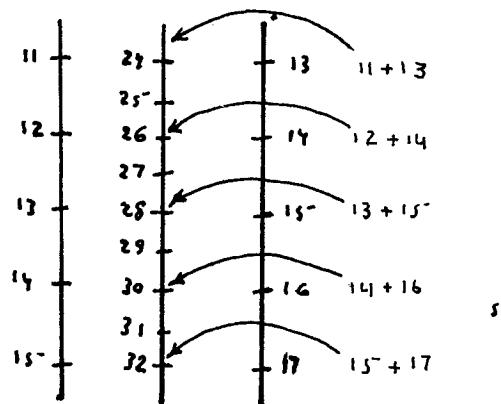
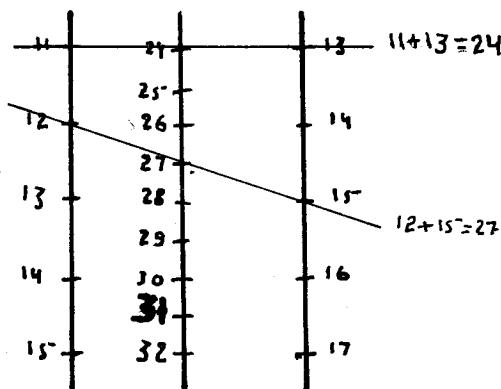
U horayn ku qabo cidhifka dunta «3» da ku taal xarriijinta bidixda. Dabadeedna fidi dunta adoo giig tiraya ilaa aad gaadho «4» ta xarriijinta midigta (Eeg Jaantuska B)



Jawaabta ka akhri xarriijinta dhexe barta ay duntu ka tallaabayo.

2. Tusaalooyin kale waxay ku muujisan yihiin shaxan-nada hoose.





15. QAABAB JOOMATARI

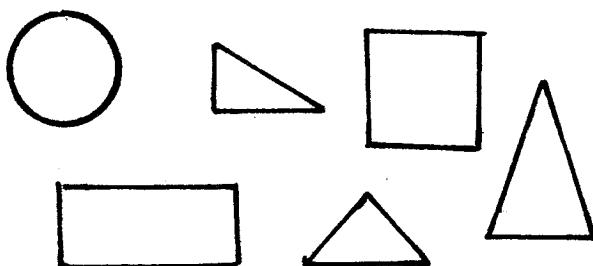
Alaabta loo baahan yahay

Waayir, xaashi adag iyo loox.

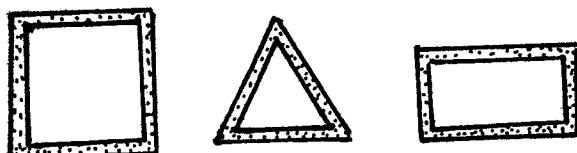
Sida loo sameeyo iyo sida loo isticmaalo

1. Soo qaado waayir dhumucdiisu tahay 2mm. U qal-

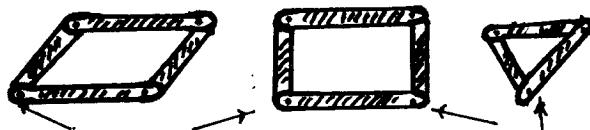
looci qaabka loo baahan yahay labada afna isku laxaamadee.



2. Qaababka ka goo xaashi adag. Xusuusnow in ay aad u waaweynaadaan oo ardayda fasalka oo dhammi ay arki karaan.



3. Qaababka joometari e dhinacyadoodu toosan yihiin waxa laga samayn karaa falliiqyo loox ah. Laydiyaada iyo labajibbaaraneyaalka sidaas oo kale loo sameeyo aad bay u wanaagsan yihiin waayo qaababkooda aaya la bedbeddeli karaa. Matalan, laydigu wuxuu noqon karaa barbaroole.



Gooso aaddimaha laydiga, ka soo qaad in uu yahay 30sm x 30sm. Soo qaado laba falliiq oo loox ah oo midkiiba yahay 50sm x 2sm iyo labo midkiiba yahay 30sm X 2sm. Isugu xidh sida hoos ku muujisan.



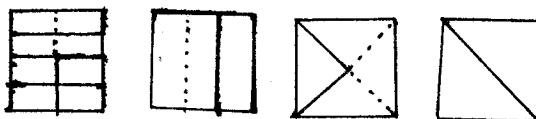
16. XAASHI U GOOGO'AN JAJABYO

Sida loo sameeyo

Soo qaado walxo goobo ah ama gooboojin laga gooyey waraaq weyn oo meelo isle'eg u qaybi. Meelaha mid ama wax ka badan goo. Tusaalayaal ayaa ku muujisan hoos laakiinse wa-xaad u baahan doontaa xaashiyo tusaya jajabyo kale.

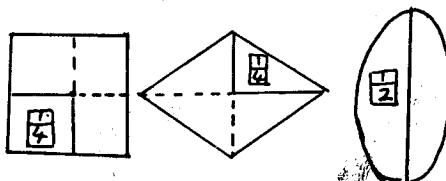
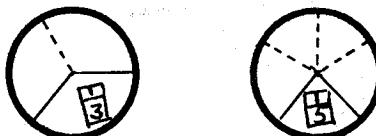


Xaashiyahaa waxa iyana laga samayn karaa labajibaara-neyaal sida hoos ku muujisan.



Sida loo isticmaalo;

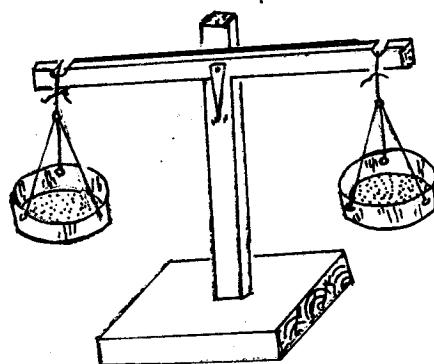
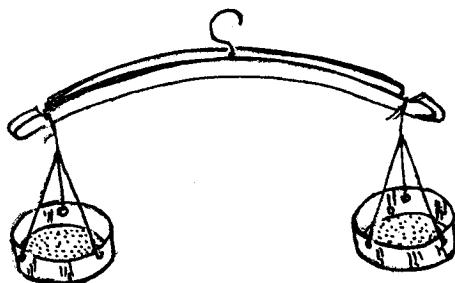
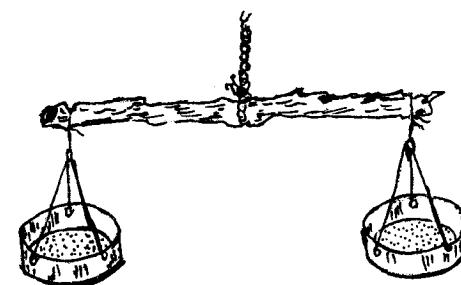
1. Ardayda waxaa la siinayaa googo'yo ay isu geyna-yaan.
2. Waxa kale oo loo isticmaali karaa isku aaddinta qaabab iyo xaashiyo ay ku yaalliin astirooyin jajab. Marka hore arayda ayaa qaababka isu geyneysa, dabadeedna waxay qaab walba ku aaddinayaan xaashi ay ku taal astiro jajab.



17. MIISAAN

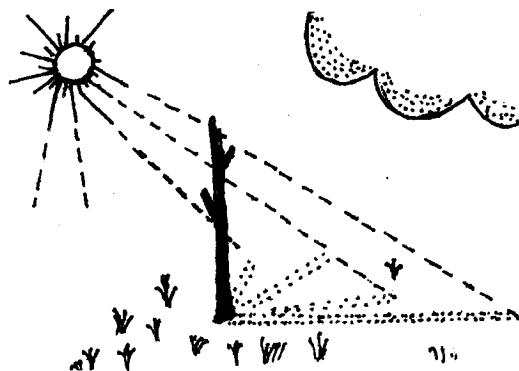
Sida loo sameeyo

Waxa si sahlan loo samayn karaa miisaannada hoos ku muujisan.



18. SAACAD HADHEED

Ul afar mitir ah dhulka ku qotomi. Saacad walba calaama-dee meesha hadhka ushu ku dhammaado



19. TILMAANTA SAMAYNTA ABXADDA TIRADA

waxqabadkeeda:

Xaashiyaha astirada ayaa lagu teedshaa ama lagu guraa si tiro looga akhriyo:

Waxay ka samaysan tahay:

Waxa laga sameeyaa xaashi aan khafiif iyo qallaf midna ahayn

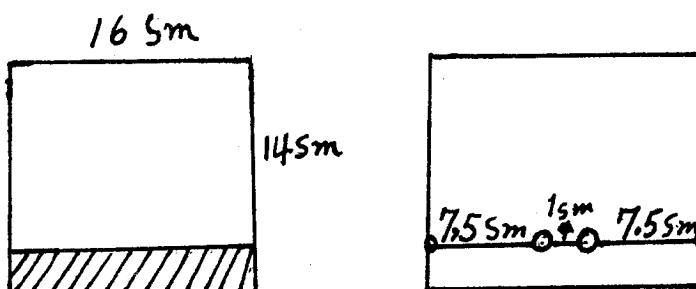
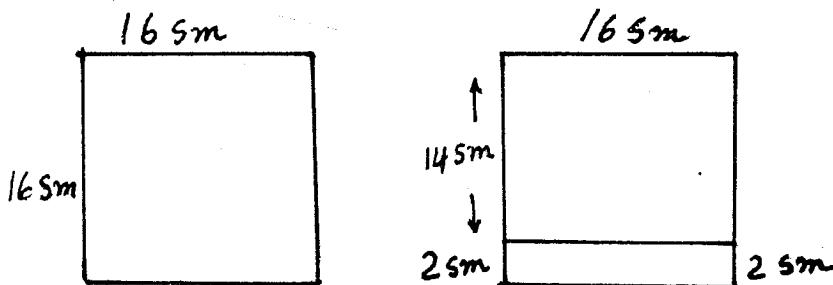
Muuqaal

Muuqaalkeedu waxay ku xiran tahay hadba qiimaha rugaha tiradaaad rabto inaad ku gurto: Hadda, waxaynu tilmaami sida loo sameeyo mid lagu muujin karo tirada leh qiimaha rugaha kowaad iyo tobneed: Haddaad u sii fiirsato abxadda tirada waa tuse qiimaha rugaha oo astiro walba rugteeda la gelinaayo.

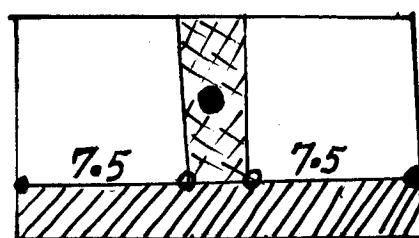
Habka loo samaynaayo tan gaarka ah.

Qaado xaashi ah jaadka kor lagu sheegay oo aaddimaheeduna 16 sm x 16sm yihin. Dhinac ka soo laab in ballaceedu ya-

hay 2sm. Intaa aad laabtay doc kasta biin kaga qodob. doc kasta kasoo kac 7.5sm kana qodob sidii kuwii hore. Eeg jaantusyada hiise:

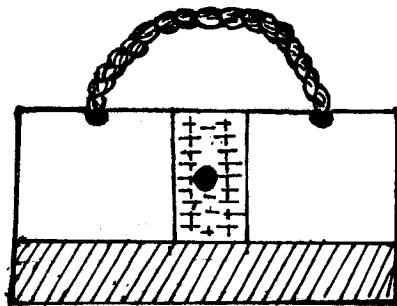


Labada qodob ee dhexda laba xarriiq oo toosan kor uga jeex. Inta dhexda ee ballaceedu yahay 1sm midab mari, dhex-deedana ku qor barta jajab tobantle. Eeg jaantuska hoose.



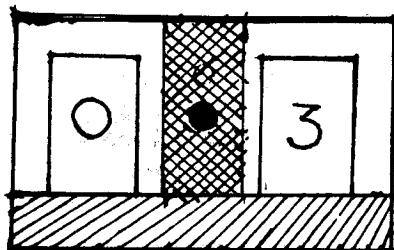
Si meel looga deldeli karo ka dalooli laba meelood oo xa-

rig loogu xiro. (Ardaygu qoortuu suran karaa). Eeg jaantuska hoose.



Sida loo Adeegsanaayo

Tirada aad rabto astirooyinka ay ka kooban tahay geli labada baallood ee Abxada tirada. Tusaale ahaan, haddii ay tiradu tahay 3 tobneed oo astiradeedu tahay 0,3 kana kooban labada astiro ee eber iyo saddex, doc xaashida astiro ee eber geli docna ta Saddex. Dheeho jaantuska hoose.



CIYAARAHA

1. HEL JAALLAHAA.

Ujeeddo

In la isku aaddiyo magacyada astiro iyo urur alaaboo ah.

Dadka ciyaaraya

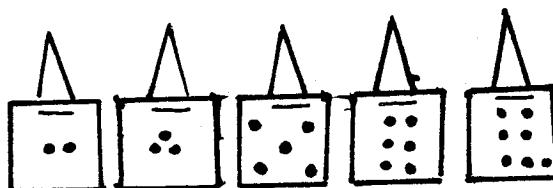
Koox arday ah.

Qalab

Toban xaashiyood oo ay astirooyinka 1 ilaa 10 ay ku qoran yihiin.



Toban xaashiyood oo ay ku qoran yihiin kooxo dhibco ah min 1 ilaa 10.



Sida loo ciyaaro

Macallinku wuxuu arday walba sinnayaa xaashi ka mid ah xaashiyahaa. Marka macallinku yidhaahdo «isdoonta» waa in uu arday waliba isku dayaa in uu helo jaallahiis. Matalan, ardayga haysta xaashida astirada ee ay 6 ku qoran tahay waa in uu isku dayaa in uu helo ardayga haysta xaashida ay ku yaaliin 6 dhibcood. Markuu arday waliba helo jaallahiis, macallinku ha ururiyo xaashiyaha, dabadeedna arday walba ha siiyo xaashi ka geddisan tiisii hore. Markaa ciyaarta waxa lagu celcelin karaa intii la doono. Waxbay taraysaa haddii ay xaashiyaha ku xiran yahay xarig si uu ardaygu qoorta uga lushto.

2. ISKU AADDIN

Ujeeddo:

In la isku aaddiyo astiro iyo ururkeeda.

Dadka ciyaaraya

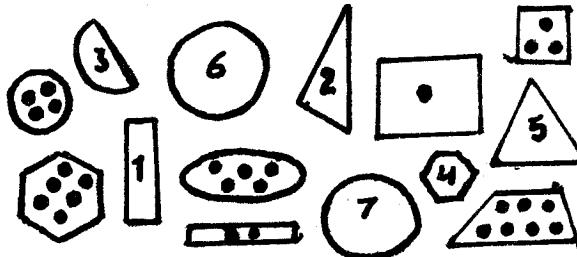
Koox arday ah.

Qalab

Sabbuurad.

Sida loo ciyaarayo

Macallinku ha ku sawiro sabbuuradda qaabab oo daba-deed dhexdooda ha ku qoro astirooyin iyo kooxo baro ah.



Macallinku markaa arday walba ha weydiyo inuu soo kaco oo uu isku aaddiyo astiro iyo koox baro ah.

Ciyaartan waxa ku loolaami kara kooxo arday ah. Koox waliba waxay jawaabitii sax ah heleysaa buundo. Kooxda mar-kaa ugu buundooyin badan marka ay dhammaato ciyaartu ayaa guuleysatay.

3. ISKU AADDIN

Ujeeddo.

In lagu barto astirooyinka.

Dadka ciyaaraya

Koox arday ah.

Qalab

Xaashiyaha astirooyinka.

Sida loo ciyaarayo

Macallinka ayaa kor u qaadaya xaashi oo markiiba qarinaya. Qofkii jawaabta u hor sheega ayaa qaadanaya xaashida.

Markaa qofkii tobantaa yaashiyoo u hor urursada ayaa guuleysta.

Tusaale

1. Horjoogaha ayaa kor u qaadaya xaashi oo markiiba qarinaya. Tirada xaashida ku taal waa 9. Ardaygii u hor sheega 9 ayaa la siinayaa xaashida.
2. Horjoogaha ayaa kor u qaadaya xaashi oo markiiba qarinaya: Tirada xaashida ku taal waa 12. Ardaygii u hor sheega 12 ayaa la siinayaa xaashida.

5. BOODDO AWRO

Ujeeddo.

In lagu barto astirooyinka.

Dadka ciyaaraya

Laba kooxood oo arday ah.

Qalab

Waxba.

Sida loo ciyaaro

Macallinka ayaa dhulka ku samaynaya labajibbaarane weyn, sagaal meeloodna wuu u qaybin. Qayb walba waxa lagu qorayaa astiro. Matalan:

Kooxda B halkay istaagayaan

5	6	3
1		2
9	8	7

Kooxda T halkay istaagayaan

Laba dhinac oo iska soo horjeeda ayey labada kooxood istaagi. Arday kooxda B ah ayaa isku taagi badhtanka labajibbaaranaha. Kooxda T arday ka mid ahina wuxuu ku dhawaayaayaa tiro. Markaa waa in ardayga labajibbaaranaha dhexdiisa ku jiraa uu boodaa astiradaasi halkay ku jirto. Haddii uu qaldamo, kooxda kale ayaa buundo la siin. Kooxuhuna ha is beddelaan.

6. TIRSIYO

Ujeeddo

In lagu baro astirooyinka iyo ururro oo la isku aaddinayo.

Dadka ciyaaraya

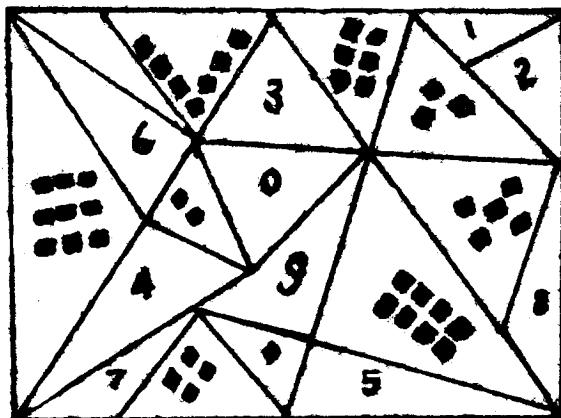
Koox arday ah.

Qalab

Dhag xaan.

Sida loo ciyaarayo

Laydigan oo kale dhulka ku sawir.



Kolka arday ha ku tuuro dhagax laydiga dabadeedna ha sheego tirada ku qoran meesha uu ku dhacay dhagaxaasi.

Ciyaartan waxa ku loolami kara kooxo arday ah. Haddii uu arday sheegi kari waayo tirada saxa ah, wuxuu ka baxayaa kooxdiiisii. Kooxda ugu dad badan marka ay ciyaarto dhammaato ayaa ah kooxda guuleysatay.

7. CIYAARTA FARAHAYO TUSAHA

Ujeeddo

In lagu barto isugeynta

Dadka ciyaaraya

Ardadoo dhan.

Qalab

Sabuuradda.

Sida loo ciyaarayo

Ardadoo dhammi waxay farahooda dhigayaan miiska du-shiisa. Macallinku wuxuu oranayaa: «Idinkoo labada gac-moodba isticmaalaya, shan farood i tusa» Dabadeedna wuxuu macallinku sabuuradda ku qoraya jawaabahooda:

5	
1	4
3	2
2	3
4	1

Tani waxay tusaysaa magacyada isugeyneed ee 5 iyadoo la isticmaalayo biiro. Ogow: Waa in ardaydu kala yaqaaniin gacanta midigtay iyo tan bidixda.

8. BOODDO

Ujeeddo

In lagu barto tirada

DADKA CIYAARAYA

Tiro kasta oo arday ah.

QALAB

Kubbad cinjir ah.

Sida loo ciyaarayo

Horjooguhu kubbad ha boodboodsiiyo isagoo dhulka ku dhufdhufanaya. Ardayduna ha tiriyeen inta jeer ee uu boodboodsii karo. Marka ay ka gedmato ha la beddeelo oo arday kale ha boodboodsiiyo. Ardayga kubbadda boodboodsiiya tirada ugu badan ayaa guuleystay.

9. MALEE TIRADA

Ujeeddo

In lagu barto tirada ilaa 10 iyo in la ogaado in tirooyinka dambe ay ka kutirsanayaal badan yihiiin tirooyinka hore.

Dadka ciyaaraya

Koox arday ah.

Qalab

Dhawr daasadood iyo tirsyo.

Sida loo ciyaaro

Macallinka ayaa dhawr urur oo kala jaad ah ku ridaya daasadaha. Matalan daasad waxa lagu ridaya 3 wax, mid kale-na 5 wax, mid kalena 6 iwm. Daasadaha miis guudkii ku af rog. Ardaydu midba mar ha maleeyo inta tirsyo ku jira daasadaha oo dabadeedna ha tiriyo si uu u ogaado in uu sax yahay iyo in kale.

10. MA LEE WAXA AAN MASKAXDA KU HAYO

Ujeeddo

In lagu barto isugeynta, kalagoynta, iskudhufasha
iyo feejignaanta.

Dadka ciyaaraya

Tiro kasta oo arday ah.

Qalab

Waxba.

Sida loo ciyaarayo

Horjoogaha ayaa odhanaya «Waxaan maskaxda ku hayaa tiro. Haddii aad (caynkaa iyo caynkaa) ku samaysid tirada, waxaad heleysaa tiro (caynkaa iyo caynkaa ah). Markaa ardayda kale waa in ay isku dayaan in ay maleeyaan tirada uu horjooguhu maskaxda ku hayo. Ardaydu waxay horjoogaha weydiin kaaraan su'aalo ku saabsan tirada, laakiinse waa in ay noqdaan su'aaluhu qaar lagaga jawaabi karo «haa» ama «maya». Ardayda kii malehiisu sax noqdo ayaa noqonayaa horjooge cusub. Had-dii horjooguhu qalad sameeyo haka baxo ciyaarta,

Tusaalayaal

1. Horjooge : «Waxaan maskaxda ku hayaa tiro u dha-xaysa 10 iyo 12» (u qaado in tiradaasi tahay 15.)
Arday : Miyey ka weyn tahay 12?
Horjooge : «Haa»
Arday : «Miyey 18 ka yar tahay?..»
Horjooge : «Haa»
Arday : «Miyey ku dhammaataa 5?»
Horjooge : «Haa»
Arday : «Ma tahay 15?»
Horjooge : «Haa»
2. Horjooge : «Waxaan maskaxda ku hayaa tiro. Haddii aan u geeyo 2, wadartu waa 8.»
Arday : «Ma tahay lix?»
Horjooge : «Haa»
3. Horjooge : «Waxaan maskaxda ku hayaa tiro. Had-dii aad 2 u geyso, kana goyso3, jawaabtu waa 7.»
Arday : «Ma tahay 5?»
Horgoge : «Maya»
Arday : «May tahay 8?»
Horjooge : «Haa»

11. CIYAARTA FARAH.

Ujeeddo :

In loo bilaabo fikradda tiro kiisi iyo tiro dhaban.
Ogow;

Dadka ciyaaraya

Tiro kasta oo arday ah

Qalab

Waxba

Sida loo ciyaarayo

Macallinka ama horjoogaha ayaa dadka ciyaaraya weyddiinaya inay tiro ka sameeyaan farahooda iyagoo labada gacmoodba isticmaalaya. Arday waliba, intuu tirada samaynayo, waa in uu gacmihiisa miiska hoostiisa geliyaa. Waxa gacmaha miiska hoostiisa laga soo saari karaa marka uu macallinku ama horjooguhu yidhaahdo «Gacmaha kor u taaga.»

Macallinka : Gacmahiina miiska hoostiisa geliya. Tirada 8 sammec oo faraha aad labada gacmood ka soo qaadatayna ha is le'ekaadaan.»

Macallinka : «Diyar ma tiihin»

Ardayda : «Haa»

Macallinka : Gacmaha kor u taaga (Ardayda ayaa labadooda) gacmahoodba kor u taagaya.)

Hubi in arday waliba uu gacan walba kaa taagay afar farood. Tirooyinka 2, 4, 6, sidoo kale ku samee. Imminka qaado tirooyin kisi ha.

Macallinka: «Trada 5 samee oo faraha aad labada gacmood ka soo qaadatayna ha is le'ekaadeen.»

Ardayda : «Ma suuroobayso»

Macallinka : «Bal haddaba aan sabuuradda ku qorno tirooyinka laga samayn karo iyo kuwa aan laga samayn karin faro isleeg oo gacmaha laga qaadanayo».

Tusahan oo kale samee

2	1
4	3
6	5
8	7
10	9

Macallinka : Tirooyinka laga samayn karaa waa dhaban kuwa aan laga samayn karina waa kisi.

12. HANGGAALLO

Ujeeddo :

In lagu barto isugeynta.

Dadka ciyaaraya

Koox arday ah.

Qalab

Waxba

Sida loo ciyaaro

Labajibbaarane weyn samee. U qaybi 9 labajibaarane oo yaryar oo mid walbana ku qor tiro u dhaxaysa kow iyo sagaal.

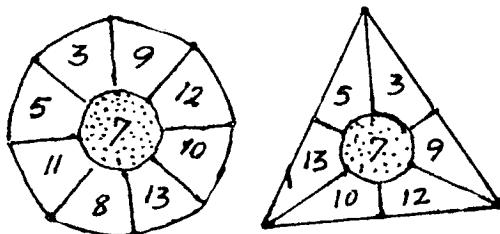
1	6	7
8	2	4
3	9	5

Arday ayaa tegaya labajibbaaranaha dhexe oo isku taagaya lug keliya. Wuxuu dabadeed u boodayaa labajibbaarane kale. Markaa ha sheego ardaygaasu wadarta tirooyinka ku yaal labadaa labajibbaarane. Matalan $2 + 4 = 6$, $2 + 7 = 9$.

Arday waliba sidaa ha sameeyo ilaa uu qalad samaynaayo ama uu 8da wadaroodba sheegayo.

Haddii kolba tirada labajibbaaranaha dhexe ku jirto la beddeelo, waxa lagu barran karaa hubaalaha isugeynta oo dhan.

Haddii aad rabtid, waxaad samayn kartaa dhawr kooxood oo isla mar keliya ku ciyaaraya meelo kala geddisan. Waxaad kaloo sawiri kartaa qaabab ka duwan labajibbaaranaha matalan.



13. DUKAANKA OO LA QABAN AAYO

Ujeeddo : In lagu layliyo xisaabfallada

Dadka ciyaaraya

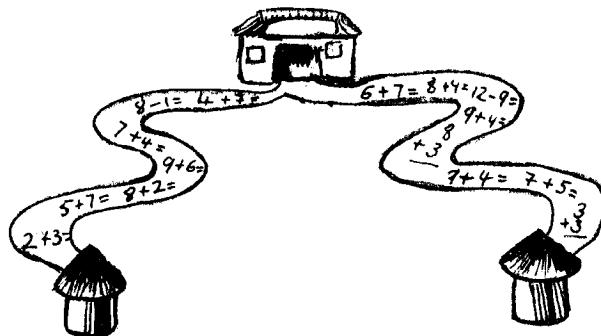
Afar ilaa toban arday.

Qalab

Sabuuradda.

Sida loo ciyaarayo

Sabuuradda ku samee sawirkan oo kale.



Dadka ciyaaraya laba kooxood u qaybi. Sida ay kooxi ku gaadhi kartaa dukaanka waxa weeye iyagoo layliyada ay wad-dada kula kuilmayaan ka shaqeeya. Kooxdii hor dhammaysa lay-liyada ayaa guuleysatay. Dadka u ciyaaraya kooxaha waa in midba mar uu ka shaqeeyaa layliga. Haddii uu mid qalad sameeyo waa in kooxdaasi ay halkii ugu horaysay kaga soo bilaabaan.

14. KUBBADDHA QABO.

Ujeeddo :

In lagu layliyo isugeynta, kalagoynata iyo iskudhufashada.

Dadka ciyaaraya

Tiro kasta oo arday ah.

Qalab

Kubbad.

Sida loo ciyaarayo.

Ardadu ha sameeyeen goobo oo macallinku ha istaago xud-dunta. Macallinku kolba arday ha u tuuro kubbadda oo ha weyddiiyo inuu buuxiyo weedh fudud. Inta uu ka shaqaynaayo, ha tiriyeen ardaydu ilaa 6 ama 8. Ardaygii kubbadda qabtay waa in uu jawaabta sheegaa inta aan tirada ugu dambaysa lagu dha-waaqin. Haddii uu buuxin kari waayo weedha waa in uu xud-dunta goobada macallinka isla taagaa. Sida uu uga soo baxayaana waxa weeye isaga oo ka hor dhammeeya qof kale weedh la weyddiiyey.

15. LACAGTA UGU YAR.

Ujeeddo :

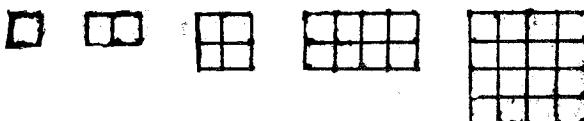
In lagu layliyo tirada lacagta, sarrifaadda lacagta, tirada oo labo labo, afar afar iyo siddeed siddeed loo tirinayo.

Dadka ciyaaraya

Kox arday ah

Qalab

Qaddaadiic falliiqyo waraaq ah oo sidan u'eg.



Sida loo ciyaaro

Arday u dooro «Khasnaji». Arday kale oo walbana sii qaddaadiic iyo falliiqyo. Khasnajiga ayaa ku dhawaaqaya qaddar. Ardaygii u hor sameeya qaddarkaa isagoo isticmaalaya tirada ugu yar ee qaddaadiic iyo falliiqyo ah ayaa guuleystay. Ardayda waxa loo qaybin karaa kooxo. Marka uu arday koox ka mid ah uu guuleysto kooxdu waxay heleysaa 5 buundo. Haddii uu arday sameeyo qaddar khalad ah, ama uu arday kale ka sameeyo qaddarkaa qaddaadiic ka yar tiisa, kooxdiiisa waxa ka go'aya 5 buundo.

Matalan :

1. Khasnaji : «75 senti.»

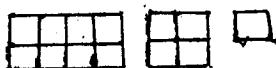
Arday : «Toddoba min 10 senti ah iyo hal 5 senti ah.»

Arday 2: «Hal 50 senti ah, laba min 10 senti ah iyo hal 5 senti ah»

Ardayga dambe ayaa guuleystay waayo wuxuu isticmaalay 4 qaddaadiic ah.

2. Khasnaji : «13»

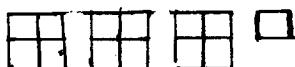
Arday 1 : «1 siddeed, 1 afar, 1 kow».



Arday 2 : «1 siddeed, 2 labaad, 1 kow».



Arday 3: «3 afraad iyo 1 kow».



Ardaygii hore wuxuu isticmaalay 3 falliiq, kii labaadna wuxuu isticmaalay 4 falliiq. kii dambena wuxuu isticmaalay 4 falliiq. Ardaygii ugu horreeyey ayaa guuleystay waayo wuxuu isticmaalay tirada ugu yar ee falliiqya ah.

16. CIYAARTA KA QAAD

Ujeeddo.

In lagu laylyo kalagoynata.

Dadka ciyaaraya

Koox arday ah.

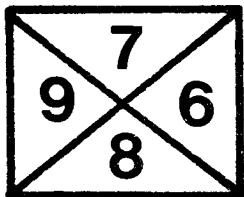
Qalab

Laba dhagax.

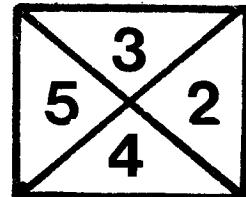
Sida loo ciyaarayo

Laba labajibbaarane dhulka ku samee. Labajibbaarane B iyo labajibbaarane T.

Labajibbaarane B



Labajibbaarane T



Halka laga bilaabayo

Ardayga hore ayaa isku taagaya xarriiqda lagaga bilaabyo. Dhagax ayuu ku tuuraya labajibbaarane B markaasuu qorayaan tirada uu isku taago. Dhagax kale ayuu ku tuuraya labajibbaarane T dabadeedna wuu qorayaan tirada uu isku taago. Dabadeed tirada labajibbaaranaha B yuu ka goynayaa tirada labajibbaaranaha T, oo weedha kalagoontana wuu qorayaan, matalan $8 - 2 = 6$. Ardaygay ugu bataan weedha uu saxay ayaa guuleystay.

17. CIYAARTA LABA TIRO

Ujeeddo:

In lagu laylyo isugeynta, kalagoontta iyo iskudhufashada.

Qalab

Dadka ciyaaraya

Tiro kasta oo arday ah.

Waqtiga iyo meesha lagu ciyaarayo

Fasalka gudihiisa, xisadda xisaabta.

Sida loo ciyaarayo

Horjooguhu laba tiro ayuu maskaxda ku qabanayaa. Ardayda wuxuu u sheegayaa wadarta, faraqa iyo taranta labadaa tiro. Ardaydu waa in ay isku dayaan in ay maleeyaan labadaa tiro. Ardayga uu malahiisu sax noqdo ayaa noqonayay horjoogaha cusub. Tusaale: (Horjooguhu wuxuu maskaxda ku hayaa 1 iyo 4.)

Horjooge : Waxaan maskaxda ku hayaa 2 tiro. Wadartoodu waa 5.

Arday : 2 iyo 3. Horjooge : Maya.

0 iyo 5. : Maya.
: 4 iyo 1. Haa. (Ardaygan ayaa noqon horjoogaha)

19. WAA MAXAY TIRADAADU

Ujeeddo :

In lagu laylyo horsiimada tirada iyo feejignaanta

Qalab.

Waxba

Dadka ciyaaraya

10 ilaa 20

Waqtiga iyo meesha lagu ciyaarayo

Waqtigii la doono iyo fasalka gudihiisa ama dibadda.

Sida loo ciyaarayo

Ardayda ayaa isa safaysa. Ka soo tiri xagga bidixda ilaa ka ugu midigeeya ama xagga hore ilaa ka ugu dambeeyaa. Horjoogaha ayaa ku dhawaaqaya tiro oo dabadeedna amar buu bixinayaa. Haddii uu ardaygii tiradaa lahaa uu markiiba ku dhaqaaqi waayo amarkaa wuu ka baxayaan ciyaarta. Markii walba ee arday ka baxo, tiri haddana.

Tusaale

Horjooge : Ardayga toddobaad, gacanta midig kor u qaad. Ar-

dayda tiradoodu kisiga tahay, gacanta bidix kor u qaada. Ardayga lixaad, dib u jeeso.

20. MALEE WAXAAN KA FEKERAYO

Ujeeddo :

In lagu barto isugeynta, kalagoynata, iskudhufashada, iyo feejignaanta.

Qalab.

Waxba

Dadka ciyaaraya

Tiro kasta oo arday ah

Sida loo ciyaarayo

Horjoogahaa odhanaya, «Waxaan ka fekeraya tiro. Haddii aan ku sameeyo tirada caynkaa iyo caynkaa, waxaan heli tiro caynkaas iyo caynkaas ah. Waa in ay isku dayaan ardaydu in ay maleeyaan tirada uu horjooguhu ka fekeraayo. Waxay weyddiin karaan horjoogaha su'aalo ku saabsan tiradaa laakiinse waa in ay su'aaluhu noqdaan qaar lagaga jawaabi karo «haa» ama «maya» keliya.

Tusaale 1 :

Horjooge : Waxaan ka fekeraya tiro u dhaxaysa 10 iyo 20.
(Tiradu ha ahaato 15.)

Arday : Ma ka badan tahay 12?

Horjooge : Haa.

Arday : Ma ku dhammaataa 5?

Horjooge : Haa.

Arday : Ma tahay 15

Horjooge : Haa

(Su'aasha u dambaysa ardayga weyddiyya ayaa horjooge noqon.)

Tusaale 2 :

Horjooge : Waxaan ka fekeraya tiro; haddii aad u geyso 2,
Wadartu waa 8.

Arday : Ma tahay 6?

Horjooge : Haa

(Ardaygaas ayaa noqon horjoogaha cusub).

Tusaale 3 :

Horjooge : Wuxaan maskaxda ku hayaa tiro; haddii aan u
geeyo 2 kana jaro 3, tiradu waa 7.

Arday : Ma tahay 5?

Horjooge : Maya.

Arday : Ma tahay 8?

Horjooge : Haa.

(Horjoogahaas cusub ayaa halkaa ka qaadaya . . .).

21. CIYAARTA XAASHIDA.

Ujeeddo :

In lagu barto xisaabfallada.

Qalab

Waxay ku qoran yihiin ciyaar walba hoosteeda

Dadka ciyaaraya

3 ilaa 10, arday.

Waqtiga iyo meesha lagu ciyaarayo

Waxa waqtii kasta ciyaari kara ardada kuwa u baahan
naqtii iyo kuwa layliyada hore u dhammeeya.

B. ISKU AADDIN

Qalab

Xaashiyaha isugeynta ee sawirka leh ama astirooyinku
ku qoran yihiin.

Sida loo ciyaarayo

Horjoogaha ayaa kor u qaadaya xaashi oo markiiba qari-naya. Ardayga u hor sheega tirada ku taal xaashida ayaa la siinayaa xaashida. Ardaygii toban xaashiyood u hor urursada ayaa badiyey.

T. FEEJIGNAAN

Qalab

Xaashiyo ay ku qoran yihiin hubaaluhu ama-iyo sawiro. Afartii xaashiyoodba waxa ku magacaaban tiro keliya, matalan.

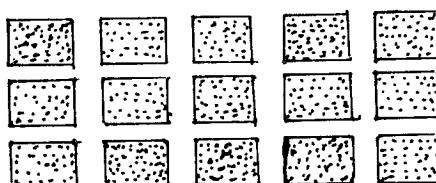
$0+2$	$1+1$	$2+3$	$3+3$
$\times \times$	$2+0$	$\times \times \times$ $\times \times \times$	$\blacktriangle \bullet \bullet$
3	$\bullet \bullet$	$3+4$	$16-9$
$2+1$	1×3	$\bullet \bullet \bullet \bullet$ $\bullet \bullet \bullet$	7
$3+1$	$2+2$	$\times \times \times \times$ $\times \times \times \times$	$\bullet \bullet \bullet \bullet$ $\bullet \bullet \bullet \bullet$
4	$\times \times$ $\times \times$	$3+5$	8
$4+1$	$10-5$	3×3	$5+4$
$8-3$	$2+3$	$3+6$	$11-2$

Sida loo ciyaarayyo

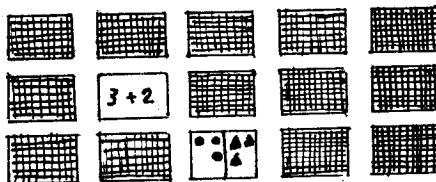
Haddii laba arday ciyaarayso, waa in lammaanayaasha xaashiyaha ihi noqdaan tiro kisi ah si aanay labada arday u noqon barbarro. Xaashiyahoo dhan waa la isku baandhayn, oo dabadeedna iyagoo foorara miis guudkiis midba meel la dhigi. Arday ayaa soo kacaya, xaashi ayuu rogi, oo halkeedii ku celin. Haddana waa in uu xaashi kale rogaa. Haddii labadaa xaashiyood magacaabyaan tiro keliya, waa in uu ardaygaasi qaataa labadaa xaashiyood. Haddiise ay labada xaashiyood magacaabin tiro keliya waa in uu ardaygaasi labada xaashiyoodba foorariyaa oo halkooda ku celiyaa. Xaashiyaha waxa la sameyn karaa intii la doono.

Tusaale.

Ka soo qaad in xaashiyaha loo dhigay sidan:

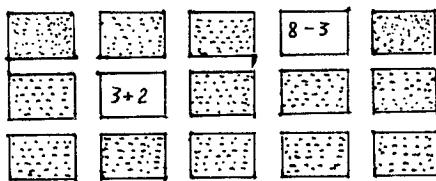


oo marka uu arday laba xaashiyood sidaan u rogay:



Labadan xaashiyood waxay magacaabayaan tirooyin kala jaad ah. Markaa waa in uu ardaygu rogaa xaashiyaha oo halkiisa ku noqdaa.

Imminka waa markii qardayga labaad. Ka soo qaad in xaashida hore ee uu rogay inay tahay 8-3. Waa in uu markaa xusuustaa in xaashidii hore ee u ardaygii rogay ay ahayd $3+2$ (oo ay magacaabayso tirada xaashidiisa). Haddii uu xusuusan karo meesha ay taal, ha helo oo ha rogo. Markaa labadiisa xaashiyood sidan bay isugu aaddisnaan.



Labada xaashiyoodba waxay magacaabayaan tirada 5, marka wuu qaadanayaa aradaygaasu labada xaashiyoodba.

Marka xaashiyaha oo dhan la wada qaato, arday waliba ha tiriyo inta xaashiyood ee uu haysto. Ardaygii ugu xaashiyo badan ayaa badiyey.

22. TOMBOOLADA TIRADA

Ujeeddo

In lagu naqtiimo hubaalaha.

Qalab

Xaashiyo sida kuwa hoose oo kale :

b) Xaashiyaha qofka ciyaaraya :

10	11	12	13	14	15	16	17	18	19	20
0+10	0+11	0+12	0+13	0+14	0+15	0+16	0+17	0+18	0+19	0+20
1+10	1+11	1+12	1+13	1+14	1+15	1+16	1+17	1+18	1+19	1+20
2+10	2+11	2+12	2+13	2+14	2+15	2+16	2+17	2+18	2+19	2+20
3+10	3+11	3+12	3+13	3+14	3+15	----
4+10	4+11	4+12	4+13	4+14	4+15	:	:	:	:
5+10	5+11	5+12	...	:	:	:				
6+10	6+11		:	:	:					
:	:									

(Halkan waxa ku muujisan sawirka saddex xaashiyood oo ke-liya laakiinse arday walba waa in uu helaa xaashi. Jinka ugu wanaagsan ee xaashiyahaasi waa 9sm × 9sm oo si sahlan loogu qaybin karo 9 labajibbaarane oo min 3sm ah.)

t) Xaashiyaha qofka yeedhinaya.

13	10	12	14	18	12	19	11	10
16	15	14	17	10	14	12	16	18
11	18	17	9	16	15	13	15	19

(Xaashiyaha halkan ku sawirani waxay tusayaan isugeynta min 10 ilaa 20, hubaalaha isugeynta oo dhammina ma muujis-na. Xaashiyahani waa muunaduun.)

Dadka ciyaaraya

Tiro kasta oo arday ah.

Sida loo ciyaarayo

Arday u doora inuu noqdo ka yeedhinaya. Xaashiyaha qofku yeedhinayo ayaa la isku baandhaynayaa oo lagu ridaaya sanduuq ama daasad. Arday walba waxaa la siinayaa xaaishi. Ardayga yeedhinaya ayaa kolba xaashi soo saaraya oo yeedhinaya waxa ku qoran xaashidaa. Ka soo qaad in uu yeedhiyo, $12 + 2$. Ardaygii ay xaashidiisa ku qoran tahay 14 ayaa dhagax guud saaraya meesha ay 14 ku qoran tahay. Ardayga ay ugu hor dhammaadaan yeedhiska tiradiisu ayaa badiyey. Mar allaaaliyo marka ay arday ka dhammaadaan tirooyinka ku qoran xaashidiisa ayaa uu ku dhawaaqayaa «jooji». Waa in uu markaa baruhu hubiyaa in la wada yeedhiye tirooyinka ku qoran xaashida ardaygaa. Haddii aan la wada yeedhin tirooyinka ku qoran wada ciyaarta ilaa uu arday yidhaahdo «jooji».

Tusaale :

Xaashida qofka ciyaaraya

10	16	17
15	11	18
14	13	12

Yeedhiye : (Wuxuu soo saarayaan xaashida $12 + 1$ oo uu yeedhiyo.) $12 + 1$.

Arday : (Wuxuu dhagax saarayaa labajibbaaranaha tiradiisu tahay 13 sida hoos ku muuiisan.)

10	16	17
15	11	18
14	13	12

Yeedhiye : (Wuxuu soo saarayaa marka labaad xaashida $16 + 4$ wuxuuna yeedhinayaa.) $16 + 4$.

Arday : Ma haysto tiradan t. a labajibaaranaha tiradiisu tahay 20. Marka waxba samayn maayo ee wuxuu sugayaa yeedha dambe.

Yeedhiye : (Wuxuu soo saarayaa xaashi kale oo uu yeedhinyo.) $10 + 5$.

Arday : (Wuxuu dhagax saarayaa labajibbaaranaha ay tiradiisu tahay 15. Xaashidiisa markan waxaa saaran 2 dhagax sida hoos ku muuiisan:

10	16	17
15	11	18
14	13	12

Sidaasayna u soconaysaa ciyaartu ilaa uu arday odhana-yo «Jooji».

Ogow : Iyadoo la isticmaalayo xaashiyo ay ku qoran yihiin hubaalo ay ardaydu yaqaaniin oo kalagoyn, iyo iskudhufasho ah ayaa la ciyaari karaa.

23. CIYAAR WANNIIN

UJEEDDO :- Barashada isugeynta tobneeddo, jajabyo iyo ti-rooyin idil.

Meesha :- Fasalka gudihiisa

Tirada ardayda :

Hannaanka : Kooxo middiiba afar arday tahay
Qalab Kooxdiiiba hal miis ha fariisato.

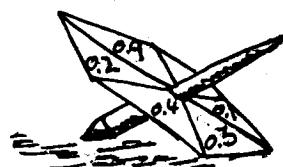
1. Qori ama qalin. Kooxdiiiba hal qalin sii.
2. Xaashi jaafi ah. Xaashida ka samee shan geesoole oo.qaabsan. U qaybi saddexagal. Saddexagalba tiro qudh ah (ha ahaato jajab, jajabtobanale ama tiro idil) ku qor Geesooleyasha tirooyinka qaarkood ha kala duwanaadaan. Geesoolaha dhexda ka dalooli.

Waxqabad :-

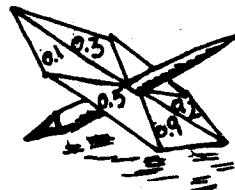
Qalinka ama qoriga geli meesha daloosha ee geesoolaha. Qalinka iyo geesoolaha isku jira arday kastaba laba jeer ha winiiniyo. Labada jeer labada geesood ee uu kolba mid u jiif-sado tirooyinka ku qoran haysu geeyo. Ardaygii isugeyntiisu qaldanto ciyaartuu ka baxayaa. Kooxba ardayga ku soo hadha ayaa badiyey.

Tusaale :

winiinta koowaad



winiinta labaad



$$\text{Isugeyntu waa } 0.3 + 0.9 = 1.2$$

24. CIYAAR BERETAN

Ujeeddo : Barashada kala weynida + jeeddo.

TIRADA KA QAYB GALEYSA : Kooxo midiiba toban iyo kow arday tahay.

ALAABADA : 1) Xaashiyaha astirooyinka (eber ilaa sagaal)

QAABKA LAYSU TAAGAYO : Tobankiiba goobay samaynaayaan, midna alaabaduu haynayaa oo kooxdiisu intay he sho ayuu qorayaa.

WAXA LA QABANAAYO : Kooxba arday ka dooro oo beretansii. Kii ugu soo dheereeya kooxdiisa ha dhix fadhiisto. Had iyo jeer weyddii kooxaha inta ka fadhida (inta ka tobant ee ka fadhida). Qoraha kooxdu ha muujiyo abxadda tirada hadba inta kooxdiisa ka fadhida. Markuu arday waliba oo tobanka goobabada taagan ahi tartanka ka qayb galoo waxaad weyddiisaa kooxda badisay. Su'aasha si kale u weyddii oo ah intee ka tobant ayaa koox walba ka fadhida? Ayaa ugu badan? Ayaa ku xiga iyo yaa ugu yar?

Halkaa wuxuu ardaygu ka baran doonaa horsiimada jajab tobantle siiba tobneed isagoo gargaarsaday isgarabdhiig.

25. CIYAAR-GOOBEED.

Ujeeddo :

Barashada qoraalka tiro abyant (tiro idil) iyo tobneed.

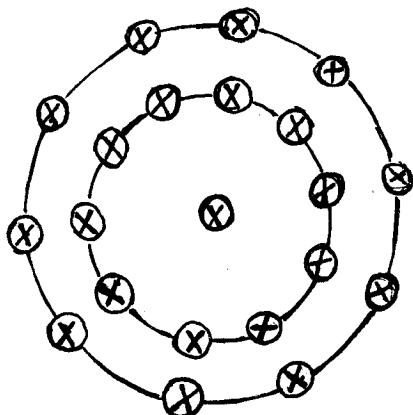
Meesha : Fasalka debeddiisa. Gego bannaan.

Tirada ka qayb galaysa :

Tirada intaad rabto ka dhig. U qaybi kooxo middiiba tahay labaatan iyo kow arday.

Qaabka laysu taagaayo :

Kooxdiiiba waxay isu taagaysaa laba goobo oo min toban ah iskuna meersan, midna taagan yahay. Eeg jaantuska hoose (arday bay u taagan tahay).



Alaabta

1. Xaashiyaha astiro (eber ilaa sagaal) arday walba ha haysto. Arday ayaa u baahan doona xaashi astiro «1» oo dheeraad ah si uu u qoro «1». Xaashidaa u dhiib ardayga dhexda ku jira si uu u siiyo ka u baahda.
2. Abxadda tirada. Labaatanka gooboyinka taagan waa in mid walba abxad tiro haysataa.

Waxa la qabanaayo

Xisaabfal dooro sida isugeynta ama iskudhufashada. Ardayga dhexda ku jiraa laba xaashiyood ha soo saaro. Mid ka mid ah kuwa goobada gudaha taagan jawaabta ha weyddiiyo. Ardayga jawaabta saxa ah sheegaa goobiisa ha fariisto. Markuu mid fariistaba waa inuu weyddiiyaa inta tobneed ee kooxda ka fadhida. Jawaabta la sheego ha qoro kii wax fariista ugu dambeeyey isagoo ku muujinaaya abxada tirada. Sidaa ha u wado ilaa tobanka goobada guduuhu wada fariistaan.

Haddii mid kuwa goobada gudaha taagani jawaabta saxa ah ee xisaabfalka garan waayo jawaabta saxa ah ha ka raadsa-

do kuwa goobada dibedda taagan. Labadaasi meelaha ha isugu beddeelo isagoo ka gartay fariisinaaya meeshii ka garan waayey. Ujeeddada waxay tahay inaan goobada dibedda cidii ka fariisan ilaa tobanka goobada guduuhu wada fariistaan si ay ugu soocnaato «Labaataneed». Marka tobanka goobada guduuhu wada fariistaan waxaad u gudubtaa fariisinta goobada dibedda. Midba mar weyddii jawaabta xisaabfalka labada tiro. Kii gartaa ha fariisto isagoo qoraya tobneedda kooxda ka fadhida marka isagana lagu daro.

Xusuus. Ardayga dhexda taagan ayaa hawsha qabanaaya. Baruhu waa ka kormeere.

26. INTEE LE'EG YAHAY MIRIDHKU

Ujeeddo :

In lagu barto qiyaasta waqtiga.

Qalab

Saacad leh gacanta sekenka,

Dadka ciyaaraya

Tiro kasta oo arday ah.

Waqtiga iyo meesha lagu ciyaarayo

Waqtii kasta ayaa fasalka gudihiisa iyo debadiisaba lagu ciyaari karaa.

Sida loo ciyaarayo

Arday u dooro waqtii-haye. Ardadoo dhammi indhaha ha isku qabteen. Marka waqtii-hayuhu (oo saacad waqtiga ka ilaa-linaya) uu yidhaahdo «diyaargarow» arday waliba wuu istaa-gayaa (ama gacantuu kor u taagayaa). Markuu arday isyidhaah do waxa tagtay hal miridh wuu fariisanayaa (Ama gacantuu dhigayaa). Ardayga badiyey wuxuu noqon ka fadhligiisu ugu dhaw yahay marka ay hal miridh tagto.

27. QALADKAYGA HEL.

Ujeeddo :

In lagu barto feejignaanta

Qalab

Waxba

Dadka ciyaaraya

Tiro kasta oo arday ah.

Waqtiga iyo meesha lagu ciyaarayo

Ciyaartan waqtii kasta waa la ciyaari karaa. Waxa habboon in ciyaartan waqtio badan lagu soo celiyo.

Sida loo ciyaarayo

Macallinka ayaa tuse ama xarriiq tiro ama tusaale kale sabuuradda kaga shaqeyn. Ula kacna qaladaad ha u sameeyo. Ardayga u horreeya ee arka qalad, sabuuradda ha yimaado oo ha hagaajiyo qaladka. Inta la ciyaarayo cidina yey hadlin qof yidhaahda qalad baan arkay mooyee.

Tusaaleyaal

Qaladyada la samayn karaa waa :
2, 4, 8, 11, (11 waa qalad)

28. MALEE WAXA AAN SAMEYNAYO

Ujeeddo :

Ciyaartani waa muhiim. Ardayguna wuxuu ka baranayaan garaadinta xisaabta wuxuuna ku naqtiimayaa xisaabfallada.

Qalab

Waxba

Dadka ciyaaraya

Ardadoo dhan

Waqtiga iyo meesha

Markasta iyo fasalka gudihiisa.

Sida loo ciyaarayo

Macallinka ama horjocgaha e/aa tiro weyddiisanaya ardayda. Tiradii ayuu ku sam/nayaa xisaabfal. Markaa waa in ar-

daydu garataa waxa tirada lagu sameeyey oo ay tusaale ka bixi-yaan.

Tusaale 1 :

Macallin : Tiro i sii.

Arday : 7.

Macallinka ayaa qoraya : 7 → 9

Macallin : Tiro kale

Arday : 13.

Macallinkaa qoraya : 7 → 9; 13 → 15

Arday : Haddii aan ku siiyo 5 waxaad qori 7. Ardaygani markaa wuu gartay waxa soconayaa. Ciyaarta sii wad inta aad loo wada garanayo waxa soconaya.

Tusaale 2 :

Horjooge : Tiro i sii.

Arday : 2.

Horjoogaha ayaa qoraya : 2 → 4

Arday : Haddii aan ku siinayo 3, waxaad qori 5.

Horjooge : Maya : Tiro kale i sii

Arday : 5

Horjoogaha ayaa qoraya : 5 → 10

waa in ay markaa ardaydu garataa in tirada lagu darayo nafeeda ama la labanlaabayo.