XISAAB

XISAAB

Tilmaame Bare

Fasalka 4aad

Tilmaame Bare

Fasalka 4aad

Dhibcaha Xisaabta iyo Ingiriisiga ee ardayda

JUMHURIYADA DIMOQRAADIGA FADARAALKA EE ITOOBIYA
WASAARADDA WAXBARASHADA

MOE

JUMHURIYADA DIMOQRAADIGA FADARAALKA EE ITOOBIYA
WASAARADDA WAXBARASHADA

Birr 33.35
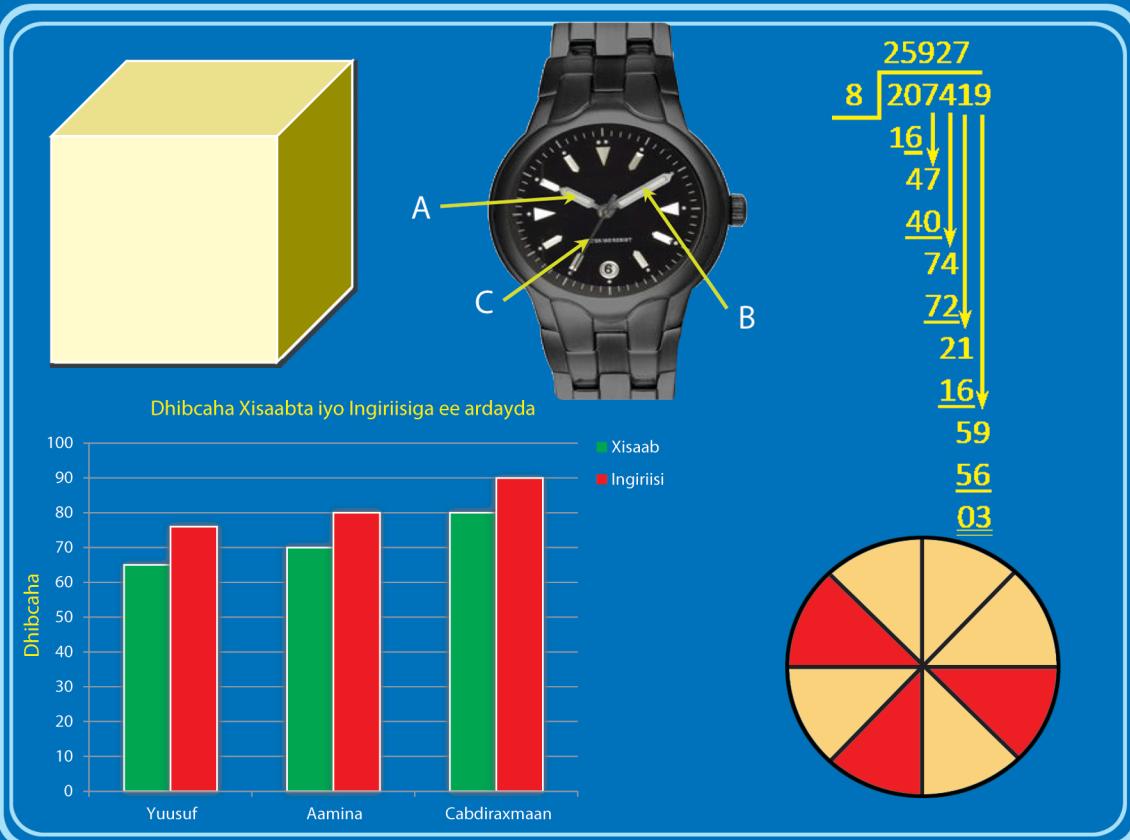
XISAAB

TILMAAME BARE

FASALKA 4[aad]

Qoraha

Daa'ud Aadam Cabdulaahi

Qiimeeyayaal

Axmed Saalax Nuur

Axmed Yuusuf Nuur

Sayid Cismaan Caateeye

Buugga waxa la daabacay 2002 E.C, Dajinta iyo soo saaridda buuggan waxa fuliyay wasaarada waxbarashada ee jumhuriyada Dimoqraadiga Fedaraalka Itoobiya mashruuca hoos yimaad ee uqaybsan kor u qoodista iyo horumarinta tayada waxbarashada Guud oo taageero ka helay hayada IDA Credit No. 4535 ET oo ah the Fast Track Initiative catalytic fund iyo dawladaha Finland, Italy, Netherland iyo United Kingdom.

Wasaaradda waxbarashadu waxay u mahad naqaysaa shakhsiyaadka iyo kooxaha si toos ah iyo si dadban uga qayb galay daabicista iyo soo bixitaanka buuggan.

Kuwa haysta ogolaashaha qoraalka lookiin lagu eedeeyo inay gaf ka galeen xuquuqda buugga. Waa in ay la xidhiidhaan xafiis waynaha wasaaradda Waxbarashada ee ku taala Arata kiilo. Adiss Ababa Itoobiya.

Tusmada Buugga

CUTUBKA **1** TIROOYINKA IDIL ILAA 1,000,000

HORDHAC

Nolol maalmeedka deegaankeena waxyaabaha aynu ku aragno oo dhan waxaan garannaa inagoo u is ticmaalayna tirooyinka idil. Tusaale ahaan lugaha iyo gacmakeena, tirada ilkaheena, tirada guud ee qoyska, da'deena, miisaankeena, agaagaarka ama magaladeena dadka ku nool tiradooda, qiimaha iyo culayska sarciga kujira jawaanada (kuuntaal), sar ciga kuuntaal ahaan ku rasaysan bakharada, Barkadaha lagu kaydiyo biyaha qiyaastooda, gurigeena iyo dugsiga fogaanta u dhaxaysa ---- I.w.m waxyaabahaas oo dhan waxaynu ku tilmaana tirooyin.

Sidaa daraadeed tirooyinka oo labartaa siwanaagsan ayay inoo anfacaysaa ugarashada deegaankeena. Haddaba cutubkan tirooyinkaillaa 10,000 inagoo sookoobaynaa ayaa 1000; 10,000; iyo 100,000 wadartooda raadinaynaa ilaa 1,000,000 tirooyinka ah loo akhriyo, loo qoro islamarkana latartansiinayo siday ukala horreeyaana loo dhigaa. Tirooyinka 6-da god ah ee tirooyinka idil iyo ku muujinta Qiimo-rugeedka. Iyo raadinta qiyaasta qiimaha ugu dhaw.

Ujeedooyinka guud ee Cutubka

Cutubkani markuu dhammaado kadib, ardaydu waxay awood u yeelan doonaan

- Akhrinta, Qoridda, isbarbardhiga iyo Horsonaanta tirooyinka idil ilaa 10,000

- Akhrinta iyo Qorridda dhufsanayaasha 1000; 10,000, iyo 100,000 ilaa 1,000,000.

- Akhrinta iyo Qoridda tirooyinka idil ilaa 1,000,000

- Muujinta Qiimo-rugeedka tirooyinka 6-god ah.

- Isbarbar dhigidda iyo Horsanaanta tirooyinka idil illa 1,000,000

- Qoridda qiimaha ugu dhow tirooyinka, iyaga oo tirooyinkaas u soo gaabinaya (usoo riixaya) tobanaadyada, boqolaadyada, kunaadyada, toban-kunnaadyada iyo boqol kunnaadka ugu dhaw.

1.1 NAKHTIINKA TIROOYINKA IDIL ILAA 10,000

Casharkan markay ardaydu dhamaystaan waxay awoodayaam (awoodi karaan)

- *Akhrinta tirooyinka idil ilaa 10,000*

- *Qoridda tirooyinka idil ilaa 10,000*

- *Isbarbar dhigidda iyo horsanaanta tirooyinka idil ilaa 10,00*

1.1.1 Akhrinta Iyo Qoridda Tirooyinka Idil Ilaa 10,000

Diyaarinta Habka Baris barasho

Marka casharka la billabayo waa in la xasuusiyaa in tirooyinka idil ee ilaa 10,000 kusoo barteen fasalkii saddexaad. Sida ku xusan buugga ardayga hawlgalka 1.1 A lagu hawlgaliyaa inay buuggooda qoraalka ah ku guuriyaan kadib si koox koox ah u falamqeeyaan sida tusaalaha laga siiyey astiro ahaan ama qoraal ahaan ugu qoran buugga waa in markaa ay isla doon doontaan laba qaab. Shaqadan isku aadaadinta ah waa in aad dulwareegtaa ardayda adigoo ogaanaya inay si sax ah isugu aadinayaan.

Kadib markay ardayda koox-koox ahaan uga shaqeeyeen isku aadinta astirooyinka iyo xarfaha tirooyinka si aad ugu xaqiijiso waxaa habboon inaad tusto jaantus tilmaamaya astirooyinka iyo xarfaha tirooyinka fallaadha udhaxaysa labokasta oo isku mid ah oo loogu tala galay siloogu kaabo barashadan casharkan. Hadduu jirin waa in sabuurada loogu qoraa isku aadinta astirooyinka iyo xarfaha tirooyinka ama weedh-xisaabeedyo.

Hawgalka fasalka lambarka 2^{aad} sida ku qoran tiro idil 1235 iyagoo adeegsanaya goobooyinka ku ag sawiran lagu dhiiri galiyaa sidii ay u akhriyi lahaayeen. Waa in sabuurada loogu qoraa tirooyinka idil sida dhufsanayaasha10,100 iyo 1000 labadaba astiro ahaan iyo xarfo ahaan si ardyda loo ogaado inay awoodeen dhufsanayaashan ilaa 10,000 awoodooda akhris iyo qoraalba.

Akhriska tirooyinkan waxaa loo adeegsan kaabayaal kala duwan sida silig, qoryo iyo furarka qaruuradaha silo adeegsado abaakas waa in silig la dhigaa rug kasta xagiisa dambe la dhigaa sagaal, sagaal xabo oo furar ah.

Kadib furarka loo baahado kolba halka hore lasoo mariyaa. Furka halkiisa aanu ka xigin silig waxa uu lamid yahay o (eber).

Si ardayga loo tuso isticmaalka abaakaska ee ku xusan buugga ardayga hawlgalka 1.1.A lambarka 2 1235 siliga rugta koobaad waxaa dul yaala 5 fur, siliga rugta tobnaadk ahina 3 fur, rugta boqolaadka na 2 fur iyo rugta kunaad oo ah 1 fur isla marka furarka oo lasoo marinayo halka danbe iyagoo ardayda eegayaan la fahan siiyaa-kun lababoqol, soddon iyo shan in akhniskoodu yahay kadib tirada furarka ay ardydu u kala bad badelaan god kasta si ay u bar bartaan akhriska dhufsanayaasha barbarashada kadib ardaydu waa in silig kasta tirada furar ka ku yaala kala badbadelaan ilaa 10,000 kadibna akhriyaan.

Hawlgalka soo socda sida ku qoran sabuurada ee qoraalka astirooyiinka ama abaakaska waxay ku arkeen waa in marka hore astiro ahaan kadibna qoraal tirooyinka ee xarfaha ah buuggooda ku guuriyaan. Qoraalka tirooyinka ee xarfaha ku muujiyaan astiroahaan ardyda inta ay laba laba u wada shaqeeyaan iyagoo uu mid astiro ahaan kuqoraa kadib ardayga kale u badelaa xarfo ahaan isla markaa ardayda kalena laga qayb galiyaa-si ay u bar bartaan qaababka kala duwan.

Awoodda la Saaro Ardyda Rabitaan ka Gaarka ah Leh

Waa munaasab in awoodda la saaro rabitaanka gaarka ah ee ardyda. Ardayda fahankoodu daahaa waa in marka hore loogu bilaabaa tiro laba astiro leh, marka xigta tiro leh saddex astiro (god) ee tirooyinka idil si ay u akhriyaan una qoraan wakhti in lasiiyo si ay u fahmaan hadba sida degdegoodu yahay ugu bartaan. Dhinaca kuwa (ardayda) fahankoodu deg dega yahay waa in aanan lagu joojin tirooyinka idil ee ilaa 10,000 hadba ay u fahamayaa astirooyinka loogu kordhiyaa waa inaad siisaa markaa caawimo ah sidii ay ugu baran lahaayeen kartidooda deg dega ah.

Qiimayn Joogta Ah

Habka waxbarista ardayda sida fasalka ay ku arkeen tirooyinka idil si loo ogaado inay akhrin iyo qori karaan waa in meelaha khaladaad ku kajiro lakor meero dabadeedna lasaxo iyadoo ay jirto (socoto) hawlgallada sixida ardayda. kadib xilliga dhammaadka casharka loo' Soo gunaanaday arday kala duwan si nasiib ah su'aalo sidan ah lawaydiiyaa tusaale ahaan 4386 akhrinteeda iyo qoraalkeeda labada qaab ku qoraan Astiro ahaan iyo xarfa ahaan. Iyadoo inta kale lagu ogaanayo inay iyaguna fahmeen. Gabagabada casharka waa inaad kusoo gabo gabeeysaa su'aalaha ku qoran **Laylis** ka 1.1A adigoo usiinay a shaqo guri.

Jawaabaha Layliska 1.1B

1.   t.   Laba boqol soddon iyo afar

      j.   kun laba boqqol soddon iyo afar

      x.   saddex kun sagaal boqol afartan iyo shan

      kh.   toddoba kun shan boqol iyo siddeetan

      d.   Sagaal kun toddobo boqol iyo lix

      r.   siddeed kun iyo sagaal iyo labaatan

      s.   lix kun iyo hal

      sh.   afar kun

2.   t. 2000   d. 9788

     j. 8536   r. 3502

     x.   10,000   s. 9788

     kh. 7320

1.1.2 Isbarbardhigidda Tirooyinka Idil Ilaa 10,000

Habka ugu billaabsita iyo ugu hormarinta casharka

Fasalka gudihiisa arday gaadhaysa tiradooda 3-5 (saddex illaa shan arday) oo isugu jira lab iyo dhaddig iyagoo dhererkooduna kala duduwan yahay Soo istaaji sabuurada agteeda. Gabadh ardayad ah intay Soo kacdo ardaydan taagan saf galisaa iyadoo ka billaabaysa ardayga ugu gaaban. Arday (will ah) kale ayaa isaguna soo joojin ardayda isaga oo ka bilaabay ardayga dheer labadan saf inay sax san yihiin ardayda kale ha xaqiijiyaan.

Kaabayaal waxbarasho sida geesaha xoolaha oo dhererkooda kala duwan yahay oo loo diyaariyay isbarbardhiggid waa la adeegsan karaa.

Habkaloo dheeraad ah ayaa la adeegsan karaa. Sabuuradda ayaad ugu qoraysaa xariiqo dhowr ah oo kala gaagaaban ayaad ardayda faraysaa in ay isbarbardhigaan iyagoo ka bilaabayo xariiqa ugu gaaban islamarkaana ardaydu qiiyaastaan midba midkakale sida uuga gaaban yahay. Haddii baakidho loogu qoro xariiqo kala duwan dabadeedna isubarbardhigan horsanaanta xariiqaha waxay kobcinaysaa malaynta ama wax qiyaasidda.

Markaad ku hawlgalisay hawlgaladan kadib in ardaydu ay ku soo barteen fasalka saddexxaad isbarbardhigga tirooyinka idil adigoo xasuusinaya ayaad u sharaxaysaa wakhtigan inay isbarbardhigaan tirooyinka godadka badan leh iyagoo koox ahaan uga wada shaqaynaya.

Buugga ardayga hawlgalka 1.1. kaga shaqeeyaan fasalka sida hawlgalkan fasalka ka muuqata.

Tirooyinka lammaanaha ah ee **B**, tirooyinka lammaana ah ee kuyaal **T** iyo saddexda tiro ee kala duwan ee ku taala **J**. waa in markaa ardydu miisaskooda iyagoo isla kaashanaya isbarbardhigaan si ay uga shaqeeyaan su'aalaha. Ardaydu waxay hawlgaladaas ama shaqadaas isbarbardhiga ah qabanayaan kahor intaynan uguuda galin (gudbin) tirooyinkan idil ee soo socda ee ah qaababka isbarbardhigida tirooyinka idil.

B. Hadba sida habboon isbarbardhigida tirooyinka leh godad kala duwan, tirooyin ka idil godadkooda kala duwan ama godadkoodu isle'eg yihiin ee ku qoran **tusaale** 1 inta loogu qoro baakidho si shaqsi shaqsi ah iyo si koox koox ah ay ardaydu tartansiiyaan. Si aad u garato inay kala sooci (saari) karaan tirada wayn ama tirada yar. Heerkan calaamadaha la adeegsanayo isbarbadhigida tirooyinka idil **< (kayar)** adigoo u dhex galinaya tusaalooyin.

Tirooyinka Lammaanaha ah ee Godadka Kala Duwan Leh

- Tirooyinka lammaanaha ah ee leh laba god iyo saddex god.
- Tirooyinka lammaanaha ah ee leh saddex god iyo afar god.

Si aad u xajiso in ardaydu karti uyeesheen isbarbardhigga tirooyinkan waa in ay ardydu isbarbardhigaan tirooyinka lammaanaha ah ee godad kala duwan iyo kuwa isku godadka ah oo ha kutusaan dabadeedna ha akhriyaan. Waa inaad hubisaa in ardaydu ay fahmeen in tirada godad badan lehi ay tahay tirada weyn.

T. isbarbardhiga tirooyinka idil ee leh godad isle'eg si habkan looga shaqeeyo buugga ardayga **tusaale 2** sida ka muuqata lammaanayaal wata godad badan oo isle'eg oo tirooyinka idil la isbarbardhigo balse intaan laka la saarin tirada gododkoodu labo kuwa ah tusaale ahaan 43 iyo 34 ha isbarbardhigaan iyagoo ka bilaabaya tirada godka wayn leh sida 43 > 34 ayaa ardayda looga baahan yahay.

Sidan si lamid ah tirooyinka idil ee lammaan godod kooduna yahay 3 god tusaale 549 iyo 630 ayey sax ku tahay. Maxaa yeelay 5 < 6 (lix ay ka wayn tahay shan) si ay u gartaan. Sida ku qoran buugga ardayga tirooyinka afarta god leh (7654 iyo 7645) ee lammaan waa in aad ku xaqiijisaa inay si wanaagsan u fahmeen iyagoo qaabka isbarbardhigida adeegsanaya ka shaqeeyaan (7654 iyo 7645).

Tirooyinka leh godadka isku midka ah ee lammaan si la isubarbardhigo waa in laga billaabaa godka ugu tirada wayn si isla isubarbardhigo isu eegidda godka wayn hadday tirada kale godkeeda tirada hore le'egyahay waa la wadayaa ilaa godka ay kukala yar yihiin laga gaadhayo. Isubarbardhiga godadka marka la garto godka ay ku kala waynaadeen ayaa la odhan karaa tiradan ayaa wayn.

Intaa waxaa dheer godad isku mid ah tirooyinka lamman ee wata tusaale ahaan 8078 iyo 8478 inta aad ku qorto sabuurada adigoo kabilaabaya godka ay kukala waynaadeen 8078 < 8478 ayaa run soobaxaysa. Kusoo dhawee ardayda markaa iyagoo iska kaashanaya ama kuwa ka doodaya caddayn sedan ah dhiibaan. Dooda, fakir isdhaafsiga iyo iskaa kaashiga ardayda adigoo kormeeraya ama indha indhaynaya xogna ka ururinaya jawaaba waad ka siin karta in taa kadib hawlgal fasal oo kale ayaad siinaysaa si ay u barbartaan.

Culayska oo Lasaaro Ardayda u Baahan Qaabab Kale

Maadaama ay jiraan kala duwanaansha xagga fahanka ardayda. Ardayda ka hoosaysa kuwa fahanka dheexe leh waa inaad uga billowdaa isugaynta tirada godka kaliya ah ee lammaan markaad ogaato inay barteen tiradan godka kaliya ah kadib ugu god kale si ay isbarbardhigyada kala duwan u bartaan fursado waa inaad siisaa adigoo u sheegaya inay ka bilaabaan godka wayn si u gartaan godka ay ku kala wayn yihiin ee hadba xiga xaga hore yahay godka lagu ogaanayo tirada wayn.

Dhinaca kale ardayda kale ee fahankoodu sarreeyo tirooyinka lammaan waa inaad ugu dartaa hal si ay badnida tirada tiradu aad ugu kobcisaa hawlgalkooda isbarbardhigida ah wakhtiga (qaabkan) shaqada ay qabanayaan inay ka caajisaan ama la yimaadaan dabee cado edeb daro ah si ayna u iman awooda saartaa si degena aad uga fiirsataa.

Qiimaynta Joogtada Ah

Wakhtiga cashar bixin habkay ardaydu u qaadanayaan dareenka aad ka qaadataa waxaad ku ogaanaysaa su'aalaha ay ardaydu kuwaydiinayaan markaad uga jawaabayso sida ay ardaydu ugu dhiiran yihiin iyo indhaindhyanta ama kormeerida fasalka ardyda isbedelkooda dadaaleed sii xoojinay a ayaad usoo gunaanadaysaa. Si ay u dhamaystirtaan casharkooda tirooyinkanlammaane ama tirooyinkan laba labada ah ee soo socda si ay isubarbardhigaan

    b.   1,000,000 iyo 787,000

    t.   962,599 iyo 962,600

Si ardydu ay u gaadhaan hadafka waa in markay tirinayaan tirada tirooyinka ku jira godad ka ay jiraan ebero kahorreeya islamarkaasna ay u adeegsandaam isbarbardhigga tusaale ahaan 005.00026 iyo 00,365. Casharka waxaa lagu soo gabagabaynayaa su'aahaha B ee layliska 1.1 adiga oo u siinaya shaqo guri

Jawaabaha Layliska 1.1T

b.	$250 > 205$	s.	$9999 > 8999$
t.	$856 < 865$	sh.	$8880 > 7881$
j.	$2000 < 2002$	dh.	$4444 < 6666$
x.	$5005 < 6500$	c.	$7335 + 7335$
kh.	$7800 < 8700$	g.	$9999 < 10,000$
d.	$5555 < 6000$		
r.	$9242 = 9242$		

1.1.3 Isbarbardhiga iyo Horsanaanta Tirooyinka Idil Ilaa 10,000

Habka ugu billaabida

Waxaa loogu billaabayaa casharkan iyadoo isbarbardhigida iyo horsanaanta tirooyinka idil ee ay ku barteen casharkii hore bugga baraha 1.1.2 adigoo usoo koobaya ayaad kana ubilaabaysaa.

Hawlgalka soo socda ee buugga ardayga bogga ku xusan saddex dugsi ardayda dhigata tiradoodu tahay 9545; 900 iyo 9500 ha uga shaqeeyaan iyagoo tirooyinka lammaane lammaane usamaynaya si ay isu barbardhigaan tirooyinka islamarkaana meelaha loo baneeyay ee banaan astaamaha $<$ ama $>$ ha isticamalaan si ay weedha u saxaan, su'aalaha ah sababta? Si ay uga bixiin karaan faahfaahin dheeraad ah.

     A. 900 --------------------- 9545 waa maxay sababtu?

     B. 900 --------------------- 9500 waa maxay sabatu?

     C. 9545 ------------------- 9500 waa maxay sabatu?

Sida kor ku qoran tusaalayaasha A iyo B faahfaahintooda waa maadaama tirooyinka idil godakoodu kala badan yihiin sida 900 waa saddex god oo kaliya mar walba tirada godadkoodu badan yahay umbaa mar walba tirada godadkeedu badan yahay umbaa wayn. Sida tirooyinka lammaane ee ku qoran C ay yihiin kuwa godka kunaadka iyo Godka boqobadka ah ay isle'eg yihiin waxay ku kala duwan yihiiun godka tobnaadka ah ee $4 > 0$. Ayaan ardayda looga baahan yahay inay sidaa ufaahfaahiyaan.

Waxaad ardayda ku howlgalisaa in tirada ardayda ee dugsiyada kala duwan astaamahan iyagoo u adeegsanaya tirada wayn, kuwa isle'eg iyo tirada yarba astaamaha $<$, $>$ ama $=$.

     900 __<__ 9500 __<__ 9545 ama

     9545 __<__ 9500 __<__ 900

Haddaba waxaa lafilayaa in ay ardaydu si dhib yar u isticmaali karaan astaamahan isbarbardhigida tirooyinka iyo horsanaanta tirooyinka oo kaliya caddayn buuxda ma noqon karto.

Su'aasha ah dugsigee ayaa ugu yar ardaydu waxay odhanayaan dugsiga ugu godka yar waa **B**.

Dugsigee ayaa isna ah dugsiga ugu tiro wayn waa dugsiga **A**. ayaa ardayda looga baahan yahay jawaabo noocaas ah inay soo goobiyaan. Fikradaas markay sidaas u fahmaan intaa waxaa kuxiga sida.

A. Tirooyinka idil ee saddex iyo Afarta god ee kala duwan leh. Tusaale 1238, 403, 845

B. Tirooyinka idil ee leh godadka iskumid ah sida 4444, 5002, 5010

Waa inaad u samaysaa arday hadba sida ku habboon iyagoo koox koox ah ama shaqsi shaqsi sidii ay tirooyinkan isugu barbardhigi lahaayeen horsanaanta tirooyinka idil adigoo kormeeraya kuna dulwareegaye hawlgalka ay kujiraan wixii khalad ahina waa inaad sabuurada ugu faahtaahisaa oo ka saxdaa.

Habkale oo Wax Barista Ardayda

Hawlgalkan waa hawlgal ku xiga isbarbardhiggii iyo horsanaanta ardayda saddexda dugsi kadib lasiin doono.

Waxaad u diyaarisaa baakidho yar yar oo ay ku qoran yihiin tirooyin kala duwan oo leh godad isku mid iyo godad kala duwanba oo saddex iyo afar godba isagu jira baakidha dan tirooyinka ku qoran isugaynayaan isbardhiga iyo horsanaanta tirada iyago saf saf ah ardaydu waa inay usheegaan (tusaan). Kooxahan ardayda koox walba sida ay horsnaanta tirooyinkan ku munjiyaan waa hab kaloo oo ardayda loo fahansiin karo lagana sixi wixii khalad ah.

Xaalada noocan waa in si degan u ilaalisaa edebdarada ama rabshada ardayda ka iman karta.

Ardayda u Baahan Qaababkale oo Kaduwan

Maadaama ay jiraan arday dadaalkooda ama heerka aqoontooda ku kala duwan waxaa muhiim ah in aad ku sisaa casharo gaar ah ardaydani dadaalka kala duwan leh. Ardayda fahan hoose leh waxaad uga billaabaysaa kolba xaaladu siday tahay adigoo uga bilaabaya isbarbardhigga iyo horsanaanta tirooyinka idil ee labada god leh. Si loo gaadhsiiyo ardayda kale ama loo kobciyo fahankooda waa inaad gododka kolba god kale ugu kordhisaa.

Dhinaca kale ardayda fahanka sare leh waxay iyaguna ubaahan yihiin qaab kale oo waxbarasho markaa iyaga inaad ugu joojiso ma'aha gododka tirooyin kan ilaa afar god hadba sida ay ufahansan yihiin adigoo u eegaya kolba god ugu biirisa shan god iyo wixii ka badan ba si. Ay isubarbar dhigaan iyo horsanaanta tirooyinka idil. Waxaa loo baahan yahay inaad usamayso isbarbardhiga iyo horsanaanta tirooyinkan iyadoo laga bilaabiyo laba god, saddex god, afar god, ilaa ay u gudbaan shan god si ay deg deg kor ugu qaadaan fahankooda.

Qiimaynta Joogtada Ah

Waxaad qiimayn joogta ah u adeegsan kartaa si ay u fusho hawlgalada ardayda xiliga waxbarista iyo barashada ardayda su'aalaha ay ardaydu jawaabaha ka bixinayaan iyo indha indhaynta ardayda marwalba aad lasocodnaysid. Iyaadoo habkani socdo si aad hadafka casharka loo hir galiyo ayaad su'aalahan soo socda ardayda sinasiib ah laba arday ama hal arday aad u xulan kadib ayaad waydiinaysaa akhrinta ama qoridda isbarbardhiga iyo horsonanta tirooyinkan.

A. Tirooyinka godadka kala duwan ee 968, 978 iyo 1005

B. Tirooyinka godadka iskumidah ee 6425,6878 iyo 6887

Dhammaan tirooyinka iyadoo aad u qorto horsanaantooda kadib ardydusheegaan midka wayn iyo midka yar iyagoo adeegsanaya astaamaha ah <, >, =, Ardayda kalana waxaa looga baahan yahay inay xaqijiyaan in ardaydani sexsan yihiin.

Jawaabaha Layliska 1.1.J

b.	975, 750, 500	x.	9776, 8978, 7776
t.	3254, 3244, 895	kh.	9950, 9050, 9000
j.	10,000, 7000, 3000		

1.2 DHUFSANAYAASHA 1000, 10,000 IYO 10,000

Ujeedada Gaarka ah

Casharka barashadiisu marku dhamaado dabadeed ardaydu waxay awood u yeelan doonaan:

- Soo saarida dhufsanayaasha 1000 ilaa 10,000

- Soo saarida dhufsanayaasha 10,000 ilaa 100,000

- Soo saarida dhufsanayaa 100,000 ilaa 1,000,000

- Isugaynta laba tiro oo ah dhufsanayaasha 1000 iyo 10,000

- Isugaynta laba tiro oo ah dhufsanayaasha 100,000

- Kalagoynta laba tiro oo ah dhufsanayaasha 1000, iyo 10,000

- Kalagoynta labo tiro oo ah dhufsanayaasha 10,000 iyo 100,000.

- Isbarbardhigidda tirooyinka idil ee ah dhufsanayaasha 1000, 10,000 iyo 100,000

1.2.1 Dhufsanayaasha 1,000

Ku dhiirigali ardayda aqoonta ay uleeyihiin inay sheegaan marka hore ereyga "**Dhufsane**" waxa uu yahay. Marka ay arday badani iskudayaan kadib, taageero sii tijaabadooda. Gabagabadana waxaad u sheegtaa laba tiro oo la isku dhuftay taranta soo baxda ay tahay.

Tusaale $4 \times 10 = 40$

Sidaa awgeed 40 waa dhufsanaha 10

Waliba 40 waa dhufsana 4

Hadda kahor ardaydu waxay aqoon u lahaayeen xisaab ahaan

$1 \times 100 = 100$

$2 \times 100 = 200$

$3 \times 100 = 300$

$4 \times 100 = 400$

$5 \times 100 = 500$

$6 \times 100 = 600$

$7 \times 100 = 700$

$8 \times 100 = 800$

$9 \times 100 = 900$

$10 \times 100 = 1000$

100, 200, 300, 400 ---- 900, 1000 inay yihiin dhufsanayaasha 100 sabuurada intaad ugu qorto dabadeed u sharax oo fahansii.

Intaa waxaa dheer sida ku qoran buugga ardayga faahfaahinta casharka 1.2.1 ugu qor sabuurada oo tus ardayda.

Kadib muddo 5 daqiiqo ah sii si ay buuggooda qoraalka ugu qoraan ugana shaqeeyaan hawlgalka 1.2.a adigoo kormeeraya ama indha indhaynaya ardayda kacaawi wixii khalad ah. Ugu dambayna adigoo usoo koobaya si ay u xasuustaan sabuurada ugu qor 1000, 2000, 3000, 4000, ----- 9000, 10,000 inay yihiin dhufsanayaasha 1000.

1.2.2 Dhufsanayaasha 10,000

Sida ku qoran buugga ardayga dhufsanayaasha 10,000 ee 1.2.2 faahfaahintiisa waa inaad ardayda siisaa fursad ay fikrado isu waydaarsadaan midba midkale wax Iswaydiiyaan.

Sida looga bixiyey faahfaahinta adigoo eegaya waa in ardaydu iyagoo kooxo ah hawlgalka 1.2.B mid mid fasalka kaga jawaabaan markaad eegto jawaabaha ardayda ama hawlgaladooda kadib soo gaabintan soo socota sabuurada ugu qor, si ay u gartaan tirooyinka

10,000, 20,00, 30,00 ------ 90,000, 100,000

Inay yihiin dhufsanayaasha 10,000

Kadib fahansii hal tiro idil inta laqoro dhufsanaheeda in aynan dhammaanayn. Dhufsanayaasha 10,000 na intaa kor kuqoran oo kaliya inaynan ahayna waa in aad u sheegtaa.

Si kooban ----, 100,000;110;

00;120,000, ----- tirooyinkan oo kalena inay yihiin dhufsanayaasha 10,000 u tilmaan.

Si nuxurka casharku ardaydaugu caddaato waa inaad faahfaahinta, su'aalaha iyo jawaabaha isla markaana tusaalooyinka ardayda adeegsataa.

1.2.3 Dhufsanayaasha 100,000

Markaad tusto dhufsanayaasha kuqoran buugga ardayga ee 1.2.3 dhufsanayaasha 100,000 kadib, waydii inay kabixiyaan tusaale lamid kuwan oo kale iyo tusaalooyin kale oo xaggaaga kayimid aad sii kadib, adigoo wakhti siinaya inaad ku saxdo fasalka dhexdiisa iyagoo hawlgalka 1.2.C. fasal ka kaga shaqeeyaan.

Xiisadan waxaa laagu soo koobayaa

100, 000, 200,000, 300,00 ------, 900,000, 1,000,000

Tirooyinkan inay yiliin dhufsanayaasha 100,000 ugu qor sabuurada.

Ardayda ilaa hadda waxay barteen si ay u barbartaan layliska 1.2.A ee shaqo guri aad ku siisay dabadeed ka soo shaqeeyeen, adiguna aad u saxdaa adigoo siinaya dhiiri galin sida ay uga soo jawaabeen.

Qaababka Kala Duwan EE Waxbarista

Sida kor kuqoran dhufsanayaasha 1000, 10,000, iyo 100,000 oo ku diyaarsan shax tus qaababka ay yihiin dhufsanayaashu.

Adigoo adeegsanaya tusaalooyin laxidhiidha casharka agagaarka guryaha (xaafadaha) ardayda waxyaabo tusaalooyin loo adeegsankaro siinaya iyagana ku caawiso inay fikrado ka dhiibtaan si casharku xiiso ugu yeesho ardayda waad samayn kartaa.

Tusaale ahaan – 100 ka riyaal imisa 10^{aad} ayaaku kujira?

Qofka mushaarkiisu yahay 1000. 2bilood, 3, 4, 5, --- 10 imisaa ayuu qaadanayaa.

Qaabka wax baris-barashada marka lagu salleeyo habab kala duwan sida su'aalo iyo jawabo, hawlgallo iyo qaabab kale xogta laga helaa inay tahay qaab kamid ah qiimaynta joogtada ah. Intaa waxaa dheer si loo ogaado ujeedooyinka cashirka in ay hirgaleen iyo in aanay hir galin waa inaad su'aalo ku saabsan ujeedada casharka ugudbisaa ardayda dabadeed jawaabaha ardayda ayaa habboon inaad ku qiimaysaa.

Sida su'aalahan soo socda oo kale.

1.　　　Qor hal hal tusaale oo ka mid ah dhufsanayaasha 1000, 10,000 iyo 100,000

2.　　　Qor dhufsanayaasha udhexeeya 70,000 ilaa 100,000 ee ah dhufsanayaasha 10,000

3.　　　Qor dhufsanayaasha 1000 ilaa 10,000 ee ah dhufsanayaasha 10000.

Jawaabaha Hawlgalada Iyo Laylisyada

Hawlgalka 1.2.B

2. b. $4 \times 1000 = 4000$ k. $7 \times 1000 = 7000$ r. $10 \times 1000 = 10{,}000$

   t. $5 \times 1000 = 5000$ kh. $8 \times 1000 = 8000$

   j. $6 \times 1000 = 6000$ d. $9 \times 1000 = 9000$

Hawlgalka 1.2.T

   b. $4 \times 10{,}000 = 40{,}000$ x. $7 \times 10{,}000 = 70{,}000$

   t. $5 \times 10{,}000 = 50{,}000$ kh. $8 \times 10{,}000 = 80{,}000$

   $6 \times 10{,}000 = 60{,}000$ d. $9 \times 10{,}000 = 90{,}000$

Jawaabaha shaqo fasal 1.2

$1 \times 100{,}000 = 100{,}000$ $6 \times 100{,}000 = 600{,}000$

$2 \times 100{,}000 = 200{,}000$ $7 \times 100{,}000 = 700{,}000$

$3 \times 100{,}000 = 300{,}000$ $8 \times 100{,}000 = 800{,}000$

$4 \times 100{,}000 = 400{,}000$ $9 \times 100{,}000 = 900{,}000$

$5 \times 100{,}000 = 500{,}000$ $10 \times 10{,}000 = 100{,}000$

Jawaabaha Layliska 1.2.B

1.

Dhufsanayaa sha 1000	Dufsanayaa sha 10,000	Dhufsanayaa sha 100,000
1000	10,000	100,000
2000	20,000	200,000
3000	30,000	300,000
4000	40,000	400,000
5000	50,000	500,000
6000	60,000	600,000
7000	70,000	700,000
8000	80,000	800,000
9000	90,000	900,000
10,000	100,000	1,000,000

2. b. 5000 bir   t. 10,000 litir   j. 40,000 kuntaal

   x. 60,000 mitir   kh. 300,000 bir

1.2.4 Isugaynta iyo kala qoynta Dhufsanayaasha 1000, 10,000, iyo 100,000

B.　Isugeynta

Su'aal Sababta "Isugaynta" aan adeegsano? Iyo

Ereyga "Isugayn" waxa uu yahay?

Nuxurka isugaynta fikrado laxidhiidha waa in aad isticmaasha si aad ardayda uga hesho tusaalooyin fikrada kala duwan iyo garashadooda isugaynta.

"Isugayn" inay tahay xisaab-fal ah laba tiro marka la isu daro wadarta kasoo baxda. Ama tirooyin kala duwan marka meel la iskukeeno (daro) xisaabfal loo adeegsado in isku darida tirooyinkaas. intaa markay ardaydu gartaan kadib si aad u fahansiiso dhufsanayaasha 1000; 10,000 iyo 100,000 isugayntoodu ka duwanayn sida kor kuxusan ayaad sabuurada ugu qoraysaa adigoo u sharaxaya tusaalayaasha ku qoran buugga ardayga ee tusaale 4, tusaale 5, tusaale 6. Haddii ay tusaalayaashaasi ku filnaan waydo waxaa habboon ama laga maarmaan ah in loo sharaxo tusaalooyin kale oo la xidhiidha ilaa ay ka fahmayaan.

Sida tusaale 4 lagu siiyey dhufsanayaasha 1000 (1 kun) isugaynta xisaab-falkooda.

$1000 + 2000 = 3000$ sababtoo ah adigoo tusaya shaxda qiima rugeed godadka ah ee ku qoran ayaad u sharaxaysaa in qiimaha godadka isku mid ah la isugaynayo sidan.

$1 + 2 = 3$

$0 + 0 = 0$

$0 + 0 = 0$

$0 + 0 = 0$

Tusaale 5 waa isugaynta dhufsanayaasha 10,000 (toban kunaadka)

$10,000 + 30,000 = 40,000$ adigoo tusaya qiima-rugeedka godadka sida shaxda ku qoran usoo gaabi sidan $1 + 3 = 4$ tirooyinka godkakale maadaama ay eber yihiin isugayntooduna eber inay fahan sii.

Sida tusaale 6 ku qorana waa isugaynta dhufsanayaasha toban kunaadka iyo boqolkunaadka.

$700,000 + 70,000 = 770,000$, sababtoo ah adigoo tusaya sida shaxda ka muuqata ugu soo gaabi

$7 + 0 = 7$

$0 + 7 = 7$　　Isugaynta godadka kalena waa eber.

Kadib marka tusaalooyin kaas ardayda aad tustay kadib sii ardayda shaqooyinkale oo dheeraad ah.

Ugu dambayna buugga ardayga bogga ＿ layliska 1.2.B su'aalaha ku qoran qaarka mid ah sida a: b: c fasalka gudiisa ku waydii ardayda inay ku dhawaaqaan jawabtooda. Layliska 1.2c su'aalaha ku qoran a: b: c: uga dhig shaqo fasal adigoo kadib jawaabtoodana usaxaya.

Su'aalaha kale ee hadhsan ardayda u sii shaqo guri kadib xiisada ku xigta u sax adigoo kuna dhiirigalinaya.

Si qiimaynta joogtada ah ugu samayso ardayda adigoo raadinaya ujeedooyinka casharka inay hirgashay ayaad su'aalaha soo socda sabuurada ugu qoraysaa si ay uga jawaabaan.

Su'aalahan ayaa loo diyaariyey

Isugee tirooyinkan

1. 20,000 + 6,000   5. 300,000 + 9,000

2. 30,000 + 6,000   6. 70,000 + 900,000

3. 200,000 + 12,000   7. 800,000 + 99,000

4. 90,000 + 8,000

Jawaabaha Layliska 1.2 t

1. b. 1500   t.   8000   j.   50,000   x.   90,000

    kh.   450,000   d.   604,000

2. b.   1000   t.   6000   j.   50,000   x.   10,000

    Kh. 100,000   d.   200,000

T.   Kalagoynta

Ereyga "**kalagoynta**" muxuu yahay? Maxaan u adeegsanaa? Fikirka ay uleeyihiin kalagoynta iyo sababta aan u adeegsano ku ardayda inay wax ka sheegaan.

"**kalagoyn**" waa xisaab fal aan u adeegsano marka tiro idil laga jarayo tiro idil oo ka yar inay tahay markay ogaadaan kadib, kala goynta dhufsanayaasha 1000, 10,000 iyo 100,000 inaynan ahayn si ka gadisanfahansi oo tus. Sida buugga ardayga ku qoran tusaalayaasha 7 iyo 8 faahfaahintooda sabuurada ugaga shaqee. Tusaalooyinka hadday ku filaan waydo tusaaleyaal dheeraad ah sii.

Kalago Kuwan Soo Socda

1. 20,000 – 10,000   5. 10,000 – 2,000

2. 30,000 – 50,000

3. 300,000 – 100,000

4. 300,000 – 70,000

Dhiiri galin ku sii iskaashiga iyo doodda ay ku sameeyeen hawlgalka kala goynta ee fasalka gudihiisa.

F.G:- maadaama ay ardaydu fahankoodu kala duwan yahay waa in ardayda hadba qaabka ay ufahmayaan ugu kala adeegsataa.

Adigoo wanaajinaya, jeclaysiinaya islamarkana xiiso galinaya ardayda waa inaad kuwo fahankoodu liito su'aalo fudud oo ay ka shaqayn karaan siisaa, halka kuwa kalena aad ka siiso su'aalo u dhigma maadaama uu fahankoodu sarreyo.

Tusaale:- Ardayda fahankoodu degdega yahay tiro godad badan sii dhinaca kale ardayda liidata sii tiro godkeedu yar yahay.

Tusaalaha 7:- sida ku qoran

$3000 - 1000 = 2000$ sababtoo ah $3 - 1 = 2$, tus ardayda qiima-ruggeedka shaxda ku qoran.

Tusaalaha 8:- sida ku qoran

$500,000 - 100,000 = 400,000$ sababtoo ah $5 - 1 = 4$ fahansii ardayda qiima-ruggeedka kuqoran shaxda (Jaantuska).

Qaababka Kale Waxbarista

Markaynu taxayno iyo waliba markaynu kalagoynayno tiroonka 1000, 10,000 iyo 100,000 waxaad adeegsan kartaa abaakas.

a) Tusaale 6 sida ku xusan tusaahaha isugaynta ayaad tusi kartaa

$700,000 + 70,000 = $ _____

700,000   70,000

b) Tusaale 8 sida ku xusan tusaalaha kalagoynta sidan hoosku qoran ayaad u tusi kartaa
$500,000 - 100,000 = $ _____
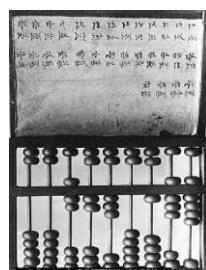
500,000   100,000   400,000

Abaakaska waxa uu yahay iyo waxa laga sameeynkaro ayaa shaqofasal 1.1. faahfaahin fiican lagu siiyey.

Sida Kutaalla A Fallaadha

Abaakaska labaad godadka 10,000 goobooyinka ku jira intuu ka saaray ayuu abaakaska koowaad ee godka 10,000 ayuu ku daray. Labada abaakas goobooyinka ka muuqda waxaa lagu arki karaa abaakaska saddexaad.

Sidaa daraadeed abaakaska labaad waxaad si fiican ugu arkaysaa isugaynta dhufsanayaasha 70,000 + 700,000 inuu jyahay 770,000.

Fallaadha b Sida Ka Muuqata

Abaakasta koowaad 500,000 ayaa ka muuqata.

Abaakasta labaad 100,000 ayaa ka muuqata.

Abaakaska labaad godka 100,000 hal wareeg ayaad laga qaadayaa. Marka hal wareeg uga qaado 4ta wareeg ee soo hadha waxay caddaynay saa 400,000.

Sidaa daraadeed 500,000 – 100,000 = 400,000 maadaama ay tahay abaasta saddexaad aad ayey u muuqataa.

Ardayda u baahan qaababka kala kuwan ee waxbarista.

Ardayda inkastoo heerarkooda ay kala duwan yihiin waxay u baahan yihiin iyadoo heerkooda lagu sallaynayo loogu fahansiiyo godadka tirooyinka. Ardayda fahanka yar godod yar, kuwa kalena godadka loo biiriyo

Buugga ardayga bogga 8 sida kuxusan layliska 1.2T markay kaga soo shaqeeyaan gurigooda kadib dhiirigalin ku habboon waa in aad siisaa.

Kuwa degdeg uu yahay fahankoodu tirooyin ka dhufsanayaasha 10000, 10,000 isugaynta iyo kalagoyntaba, kuwa liitana godadka loo yareeyo ayaad su'aalo ka waydiinaysaa. Su'aalahan soo socdana fasalka gudihiisa ku sii si ay kuugu noqoto qiimayn Joogta ah.

Qiimayn Joogta

1. Qor ama sheeg laba tiro ee dhufsanayaasha 10,000 ah wadartoodu tahay 90,000

2. Raadi isugaynta laba tiro ee dhufsanayaasha 1000,000 wadartoodu tahay 800,000.

3. Raadi laba tiro oo dhufsanayaasha 10,000 faraqoodu yahay 20,000

4. Raadi qiimaha x

    a. 700,000 + x = 900,000

    b. 700,000 – x = 400,000

    c. 900,000 – 700,000 = x

    d. 700,000 – 400,000 = x

1.2.5 Isbarbardhigidda Dhufsanayaasha 1000, 10,000 iyo 100,000

Casharka ku billow adigoo waydiinaya **isbarbardhigidda"** waydiinaya ardaydu siday ugu soo barteen hadda ka hor aqoontooda xisaabeed tirooyinka idil ee ilaa 10,000 way isbarbardhigi karaan. Si ay u yeeshaan aqoon buuxda, waxyaalaha ay deegaan kooda ku garanayaan dhererka, culayska, ballaca, da'da, wakhtiga iyo qiimaha alaabaha. Aad ayey u haboon tahay in aad ardayda ku dhiirigalisaa, kuna baraarujisaa inay shuruudahaas isticmaalaan si ay isbarbardhigan.

Laba arday intaad sabuurada soo joojiso midkeebaa dheer? Tirada gabdhaha iyo wiilasha ardayda ah ee fasalka kuwee badan?

Adigoo sheegaya laba baaskiil qiimahooda, baaskiil kee qaali ah? Midkee raqiis ah? Barkado adigoo sheegaya barkad walba inta mugee ku jira, barkadee biyo badan qaada? Adigoo su'aalaha noocan ah adeegsanaya markay ujeedada fahmaan kadib inaynan kuduwanayn isbarbardhigga 1000, 10,000 iyo 100,000 usharax inay islamarkaana fududahay.

Hawlgalka fasalka 1.2D u sii ardayda shaqo fasal markay ardaydu ka shaqaynayaan dul wareeg oo indha indhee adigoo ka caawi naya wixii khalad ah.

Imika sida u muuqata ardayda waa isbarbardhiga dhufsanayaasha 10,ka kun. Mararka dambe tirooyinka idil oo dhan mid walba isbarbardhiggooda ayey baran doonaan u tilmaan. Isbarbardhigga tirooyinka idil ee dhufsaanyaasha qudha aanay ahayn.

Qiimayn Joogta Ah

1.　　Keebaa wayn10,000 iyo 20,000?

2.　　Keebaa wayn 300,000 iyo 90,000?

3.　　Keebaa yar 80,000 iyo 8,000? Su'aalahan jawaabohooda adiga waa inay kaasoo baxaan.

Jawaabaha Shaqo Fasal 1.2J

1.　b.　2,000 bir　　　t.　5,000 bir　　　J. maktabadda ay yaallaan 70,000 buug.

　　x.　100,000 shacab

　　kh.　1,000,000 mitir wabiga ah

1.3 TIROOYINKA IDIL ILAA 1,000,000

Casharkan marka uu dhammaado ardaydu waxay awood uyeelan doonaan.

- Raadinta tirooyinka idil ee ah ilaa 5 astiro kuwo 1000, 10,000 iyo 100,000 dhufsanayaasha ah isugayntooda ilaa tirooyinka idil ee ah 1,000,000

- Akhrinta tirooyinka idil ilaa 1,000,000

- Qoridda tirooyinka idil ilaa1,000,000

Qaabka Ugu Billaabista

Casharkii hore ardaydu waxay kusoo qaateen 9barteen) 1.2.4 isugaynta dhufsanayaasha 10000, 10,000 iyo 100,000.

Intaa waxaa dheer tirooyinka tirsiimo tirintooda ee tobnaadka, boqolaadka, kunaadka, tobankunaadka, ilaa boqol kunaadka. Casharkan waxay ku baranayaan tirooyinka idil ee ilaa 1,00,000 waa inaad markaa tustaa habka ay ku garan lahaayeen tirooyinka idil ee ilaa 1,000,000.

Tusaale ahaan:- Haddii larabo in la ogaado tirooyinka idil ee udhaxeeya 4000 iyo 5000 waa tirooyinka ku jira 1 ilaa 999 oo loo geeyay 4000. Marka laballaadhiyana waa.

4000

$4000 + 1 = 4001$

$4000 + 2 = 4002$

$4000 + 3 = 4003$

$4000 + 998 = 4998$

$4000 + 999 = 4999$

Tirooyinka idil ee udhexeeya 4000 ilaa 5000 iyagoo utaxan sidan ayey ugaran karaan in 4000 ilaa 5000 tirooyinka u dhexeeya 999 tahay.

1.3.1 Isugaynta Tirooyinka Idil Iyo Dhufsanayaasha 1000, 10,000 ama 100,000 ee tirooyinka idil

Ku caawi ardayda hadda ka hor casharadii ay soo qaateen una xasuustaan si ay u qeexaan.

Shaqo fasalka 1.3A wakhti u sii si ay buuggooda qoraalka ah ugaga shaqeeyaan iyagoo ah kooxo ama shaqsi Markay ka shaqeeyaan kedib waad u gudbishaqsi. Markay ka shaqeeyaan kadib qaad u gudbikartaa tusaalaha 9. Balse hadday ka shaqayn waayaan habka looga shaqaynayo faahfaahin ka sii. Sida buugga ardayga kuqoran tusaale 9 siday ukala horreeyaan su'aalo afka kawaydii adigoo sabuuradana kaga shaqaynaya kuna dhiiri gali.

Marka laga shaqeeyo kadib layliska 1.3.A a, b, c iyo d sabuurada ugu qor shaqo fasal ahaan mid mid ha uga shaqeeyaan. Habkan waxay abuuraysaa xiisaha iyo tartansiinta ardayda inay awood u yeeshaan casharka waa inaad wargalisaa kuna adkaysaa ardayda in tirooyinka si sax ah inay u qoraan giimo-rugeeda gododka.

Kadib marka ay ardaydu kaga shaqeeyaan sabuurada islamarkaana aad siiso jawaabo iyo dhiirigalin. Su'aalaha hadhaa ilaa su'aasha 3^{aad} ee layliska 1.3.A dhammaantood shaqo guri u sii. Kadib markay kasoo shaqeeyaan usax si ay khaladaadkooda u fahmaan.

Qaababka Kale ee Waxbarista

Sida 1.2 Abaakasta loo adeegsaday waad isticmaali kartaa

Tusaale $1000 + 1325 = $ _____

$1000 + 1325 = 2325$

Kuwa kalena xiisadan sida tusaalaha hore oo kale abaakas waad u adeegsan kartaa si qaabkale oo waxbaris barasho ahaan.

Qiimayn Joogta Ah

Su'aalaha afka laga waydiinaya fasalka gudihiisa ah ee mararka kala duwan, hawlgallada fasalka, iyo laylisyadaba waxay yihiin kuwa xoojinaya ujeedooyinka casharka ahna hadafka uu leeyahay casharka in ay hirgaleen sababaha lagu garan karo sida.

Su'aalahan soo socdana waydii ardayda

1. 9 + 10000
2. 42 + 1000
3. 342 + 1000
4. 3745 + 10000
5. 13745 + 1000

Jawaabaha ka soo baxa tallabo ayaad qaadan kartaa

Hawlgalka 1.3 A Jawaabahooda

1. a)   2,100   b) 3,201   c) 7,052   d) 9,325   e.   10,002   f) 10,909

2.

Tiro idil	Dhufsanaha 1000	Wadar
324	7,000	7,324
4,121	3,000	7,121
23,103	4,000	17,103
31,415	8,000	39,415
77,777	10,000	87,777

3.   a.   3,200 qof   b.   8500 buug

B.   Isugaynta Tirooyinka Idil Iyo Dhufsanayaasha 10,000

Ku hawlgali shaqada fasal ee 1.3B inay fasalka gudihiisa iyagoo jawaabta kuqoraya buuggooda qoraalka. Kadib kuna dhawaaqaan. Ardayda horay uga shaqaysa layliska 11.3.B ee 1ᵃᵃᵈ a, b, c, shaqo fasal oo dheeraad ah sii. Ardayda markay ka shaqeeyaan jawaabaha kuhaboon sii. Intaa kadib **tusaale 10** si taxana ah ardayda odhaah ahaan u waydii adigoo faahfaahinaya ugu dambayna qaybaha hadhay layliska 1.3B su'aalahooda usii shaqo guri adigoo ilaalinaya inay ka shaqeeyeen iyo inkale si aad u garato dabadeedna tallabooyinka ku habboona inaad adeegsato ayaa loo baabaahan yahay. Tusaalahan inaad fahansiiso waxaad doorbidaysaa adeegsiga abaakas.

Qiimayn Joogto Ah

Su'aalahan soo socda ardayda ku

tijaabi isugee 4567 + 80,000

Jawaabaha Shaqo Fasal 1.3 B

11,522 litir

Jawaabaha Layliska 1.3B

1.	b.	9325	x.	54016	r.	232,223
	t.	10,002	kh.	11,5649	s.	455,678
	j.	10,909	d.	85,310	sh.	704, 537

T.   Isguaynta Tirooyinka Idil Iyo Dhufsanayaasha 100,000

Si aad casharka ubillowdo shaqo fasal usii 1.3C iyagoo buuggooda kaga shaqaynaya haddana tusaale ll sida ku qoran sida ay iskugu xigaan ardaydu u waydii adigoo faahfaahina siinaya.

Waa inaad usheegtaa tirooyinka inloo kala horraysiiyo qiima-rugeed gododkooda.

Sida tusaalahan – sidii mararkii hore abaakas waad adeegsan kartaa.

Layliska 1.3C usii ardayda shaqo guri. Dood iyo iskaashi ku hawlgali markay kaso jawaabaana, usax.

Qiimayn Joogta Ah

Su'aashan ookale su'aalo lamid ah ku tijaabi ardayda isugee 37432 + 500,000

Jawaabta Shaqo Fasal 1.3C

Qimaha cusub waa 102, 550 bir

1.3.2 Akhrinta Iyo Qoridda Tirooyinka Idil Ilaa 1,000

Nakhtiin adigoo ku samaynaya ayaad ardayda ka ogaanaysaa akhrinta iyo qoridda tirooyinka idil ilaa 10,000. Nakhtiinka kuxusan buugga ardayga bogga tusaale 12 waa nakhtiinkaas mid kutusaysa Tirooyinka idil ilaa 10,000 oo dhan waxay yihiin dhufsanayaasha wadartooda adigoo tusaya ayaad 10-ley u isticmaali kartaa in ay ardaydu xasuusan karaan, tusaale 12 sida ku qoran, u faahfaahi oo dhiirigali adigoo waydiinaya (su'aalaya) si ay uga jawaaban.

Sidaa daraadeed:- 2345 = 2000 + 3000 + 50 + 4

Sida sawirka ka muuqata 2000, 3000, 50, 4 waxa u taagan u sharax oo u faahfaahi.

Sidaa awgeed ku dhawaaqista tiradan:- laba kun saddex boqol konton iyo afar ina loo akhriyo usheeg si ay xasuustooda u cusboonaysiiyaan.

Waxaana haboon sida ku cad tusaalaha: 2345 qaababkan kala duwan in lagu tilmaamo, ka caawi si ay ugu fiirsadaan

- 2345 → Tiro   Astiro ahaan

- $2000 + 300 + 50 + 4 →$ astaanta fidsan

- Laba kun saddex boqol konton iyo afar → weedh-xisaabeed ama marka la akhrinayo

Tusaalahan siaad u faahfaahiso abaakas ayaad isticmaali kartaa.

Sida kor tusaale 12 loo faahfaahiyey oo kale ayaad tusaale 13 iyo 14 qaabab kale ugu fahan sii kartaa ardayda.

Ardaydu markay saddexda tusaaleba fahmaan kadib su'aalahan soo socda adigoo su'aalaya ilaa 1,000,000 u tiro idil ah si aad u hubiso in ay akhrinkaraan iyo waliba qori karaan.

Qiimayn Joogta Ah

1. Su'aalahan soo socda ee ah tirooyinka idil waa in ardaydu codkoodu iyagoo kor u qaadaya akhriyaan kadibna ku qoraan weedh-xisaabeed

    a. 2836 d. 546,002 g. 100,113

    b. 54,437   e. 501,012 h. 112,001

    c. 89,823   f. 987,632 i. 174,599

2. Kuwan soo socda u su'aal inay ku qoraan astiro ahaan iyo godad ahaan

    a. Shan kun toddoba boqol sagaashan iyo afar

    b. Laba iyo lixdan kun toddoba boqol siddeetan iyo laba

    c. Saddex boqol oo kun afar boqol iyo hal

    d. Saddex boqol laba iyo todobaatan kun iyo hal

    e. Boqolkun afartan iyo lix

    f. Siddeed boqol iyo siddeetan kun siddeed boqol sidded iyo siddeetan

    g. Laba boqoloo kun shan boqol iyo lix

    h. Boqol kun afar iyo toban

Kadib markaad hubiso in ardaydu fasalka dhexdiisa hakaga shaqeeyeen sii laylisyo dheeraad ah. Kadib ayaad layliska .13D usiinaysaa shaqo guri. Xaqiiji inay ka soo shaqeeyeen layliskan dabadeed kasax wixii khalad ah.

1.4 QIIMA – RUGGEEDKA TIROOYINKA 6-DA GOD AH

Ujeedooyinka Gaarka Ah

Casharkan marka uu dhammaado ardaydu waxay awood u yeelan doonaan:-

Soo saarida qiimaha qiima-ruggeedka tirooyinka idil ee 6-da god ah

Qaabka Ugu Bilaabista

Ilaa hadda waxa ay barteen dabeecadaha tirooyinka idil adigoo usoo na htiiminaya si shaxda qiimaha qiimo-ruggedka tirooyinka idil loogu muujiyo tahay ee cashar cusub oo nooc kale kaduwan inaan u ahayn usheeg ka dibna u billow.

Sidan Ugu Faahfaahi Ardayda

Haddii aan soo qaadano hal tiro idil leh afar astiro tusaale ahaan 8742, in marka la tilmaamayo astiro kasta siday ukala horreeyaan loo dhigayo u sharax.

Tirada dusheeda markaan ka billow dhina ca bidix ilaa midig.

Astiro 2 waxay ku jirtaa godka koowaadka

Astiro 4 waxay kujirtaa godka tobnaadka

Astiro 7 waxay jirtaa godka boqolaadka

Astiro 8 waxay ku jirtaa godka kunnaadka

Subabtoo ah
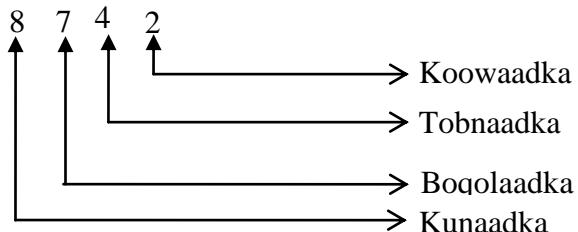
Inay tahay adigoo tusaya ardayda waxay garayeen ee kale isku day sidii ay ku xasuusuun laheeyeen

Iyadoo ah tirooyin ka idil 8742 gudeheeda

2 qiimaha qiima-ruggeedka $2 \times 1 = 2$

4 qiimaha qiima-ruggeedka $4 \times 10 = 700$

8 qiimaha qiima-rugeedka $8 \times 1000 = 8000$

Xasuusi in ay soo cusbuunay siiyaan barashadii hore.

Tiradan qiimaha qiima-ruggeedka marka aan faahfaahiyo sidan ayu u'eg yahay.

Godka boqol-kunaadka	Godka Tobanku naadka	Godka kunaad ka	Godka boqolaadka	Godka tobnaadka	Godka koowaadka
		8	7	4	2

Maadaama oo ay tahay qiimaha qiima-rugeedka godadka waa in ay ardaydu la wargaliyaa inay ku xidhantahay in god ee ay leeyiniin.

Buugga ardayga bogga 12 tusaale 2 waxa ku qoran tirooyinka idil ee 4-ta god leh oo siyaabo kala duwan ugu qoran ugu dambayn fahansii ardayda shaxda qiimaha qiima-ruggedka ee tirooyinka idil.

Si dheeraad ah ardayduna waa inay sheegaan tusaaleyaal kala duwan, iyagoo ku muujinaya shaxda qiima-rugeedka qiimaha tirooyinka.

Qaababka Waxbarista

Waxaad u adeegsan kartaa abaakas si aad u faah faahiso qiimaha qiima-ruggeedka is lamarkaana tus.

Godka boqolka Godka kunka Godka tobanka Godka kowaad

Buugga ardayga bogga 11 iyo 12 tusaale 1 iyo 2 ardayda tus adigoo adeegsanaya abaakas.

Ardayda fahansii qiimaha qiima ruggeedka doorka uu ku leeyahay xisaab fallada.

Tusaale   2374 + 121

Marka joog loogaga shaqaynayo

2374	2374	2374	2374
+121	+121	+121	+121

Haddii ilaa imika ardaydu sifiican ay u fahmeen buugga ardayga bogga 12 layliska 1.4A. shaqo guri usii. Xiisada kale markaad xaqiijiso inay kasoo shaqeeyeen iyo inkale wixii khalad iyo saxba ah ukala cadee.

Qiimayn Joogta Ah

Tirooyinka idil ee leh 6-da – 1, 2, 3, 4, 5, 6 sabuurada ugu qor, ku amar ardayda inay ku qoran shaxda qiimaha qiima-ruggeedka kadib adigoo kaduulaya shaqada ardayda tallaabo ku habboon qaad markaa.

Jawaabaha Layliska 1.4A

1.

Tiro idil	Boqol kunaad ka	Toban kunaad ka	Kunaad ka	Boqolaa dka	Tobnaadka	Koowaadka
3,582			3	5	8	2
54,629		5	4	6	2	9
87,006		8	7	0	0	6
850,345	8	5	0	3	4	5
995,321	9	9	5	3	2	1
890,405	8	9	0	4	0	5

2.　　b.　50　　　　t.　　600　　　j.　　30,000　　x.　　90　　kh.　5000

　　　d.　0　　　　r.　　4　　　　s.　　90,000　　sh.　90,000

1.5   ISBARBAR DHIGIDDA IYO HORSANAANTA TIROOYINKA IDIL ILAA 1,000,000

Waqtiga loo qoondeeyay (5xiisadood)

Ujeedooyin gaar ah

Casharkan kadib ardaydu

- *Waxay isbarbardhigi kara yaan tirooyinka idil ilaa 1000,000*

- *TIrooyinka idil ee ilaa 1,000,000 ayay horsanaan u qora yaan inta ay ka bilaabaan ta yar ilaa taweyn ama inta ay ka bilaabaan ta weyn ilaa ta yar.*

Erayada muhiimka ah:- Isbarbar dhigid, Horsanaan u qoris.

Hordhac

Isbarbardhigidda tirooyinka iyo horsanaan uqorista tirooyinka waa bar tilmameed yada qoyb hoo seed kan cutubka

1.5.1 Isbardhigidda tirooyinka idil ilaa 1,000,000 waxqabadyada baris barasho

Isbarbarshigidda tirooyinka idil in aynan ahayn cashar ku cusub ardayda oo ay ku soo barteen Cutubka 1 xasuusi Hasa yeesha ee u cadee in ay cutubkan ku baran isbarbardhigidda tirooyin ay godadkoodu badan yahay.

Taasina si aad ficilahaan ugu muujisad ardayda ku dhirigali in inta ay iskooxeeyaan ay ka wad hadlaan hawlgalka 3 ee ku yaala buuga xisaabta ee ardayaa waydii in ay ka jawaabaan su aasha laway di yay ee ah in ay sheegaan gaadhiga u hooraynaya iyo ka u danbaynaya. Kadibna Tusaalaha 1 su'aal ahaan u waydii in ay ka shaqeeyaan.

Hubi ardaydu in ay ka shaqayn kari waydiimaha Hawlgalyada iyo laylisyada adiga oo kormeer ku samaynaya buugtooda oo u saxa ya.

Jawaabaha laylis 1.5b

1.	b.	been	t.	been	j.	run
2.	b.	$5600 < 1500$	t.	$50,005 < 50,650$		
	j.	$112200 < 210300$	x.	367980		
	kh.	$804572 < 90456$	d.	$989765 < 785$		

1.5.2　　　Horsanaanta Tirooyinka Idil Ilaa 1,000,000

Tirooyinka in horsanaan 100 qoro ta yer ilaa ta weyn ama ta weyn ilaa ta yar waxa horta 100 baahan yahay oo lagama maarmaan ah in tirooyinka la isbarbar dhigo. Tusaale ahaan Buuga ardayga Tusaale 7 weedh xisaabaadka la siyay in laga shaqeeyo oo saddax toddobaad warshada caanuhu inta litir ay iibsatay hor sanaan 100 qoro waxa horta 100 baa han ya hay in tirrooyinka litirka la isbarbar dhigo.

Matalan $468500 > 378000$ waayo $4 > 3$

Sidoo kale $378000 > 370000$ waayo $8 > 0$

Sidaas darteed. Tirooyinka marka horsanaan ta weyn ilaa ta yar loo qoro waxay noqon

$46800 > 378000 > 370000$

- Adiga oo sidaas u sii wada tirooyinka leh gadad fara badnaan tood isku. Mid ah ardayda sii kolba sida ay kugu haboonaato koox koox ama kali kali si ay isku barbar dhigaan oo ay islamarkana ay horsanaan u qoraan.

Jawaabaha laylis 1.5 t

1.	t.	52540,　52500,　25377	j.	254542, 254452, 254425	
	x.	357700,　356747,　356477			
2.	t.	25377,　524425,　524542	x.	90999,　98.9999,　999999	
3.	t.	240670, 240671	x.	879999, 880000	
	j.	521744	kh.	999998, 999999	

Tabaha Qiimaynta

- Shaqo guriga laga shaqayna sii taas oo ah saddax tiro oo 6-god ah si ay hor sanaan ugu qoraan.

- Weydii ardayda in ay qoraan laba tiro dhaxdooda tirooyinka laga heli karo ee ah tirooyin 6-godlay ah.

1.6   URARISTA QIYAASTA QIIMAHA UGU DHOW

Waqtiga loo qoondeeyay (5xisadaad)

Ujeedooyin gaar ah

Casharkan ka dib ardaydu

- *Waxay isticmaali calaamada dhaweeynta*

- *Tirooyinka idil ilaa 1000 ayay u rarayaa tobnaadyo iyo boqolaadyo*

- *Tirooyinka idil ilaa 1,000,000 ayay u rarayaan tobnaad yo boqolaadyo toban kunnaad yo iyo boqol-kunnaad yo*

Erayada muhiimka ah:- U Raris u dhaweyn urarista tobnaad iyo boqolaadyo kunaadyo

Hordhac

Qayb-hooseedkan ardaydu waxay ku baran sida tirooyinka idil looga raro dhaweeyo tobnaad boqolaad kunaad

Waxqabadyada baris barasho

- Ardaydu waxay fahmi baahida 100 qabo rarista tirooyinka tusaale xiliga tiro koobka shacabka

- Ardaydu waxa akhriyi oo ay macnayn tirooyinka rarista

Tabaha qiimaynta

- Weydii ar dayda in ay fahmeen ku isticmaalida calaa mada

- Su'aalo fursad usiinaya an ay tirooyinka u raraan tobnaad yo boqolaadyo iyo kunnaad yo weydii oo shagadooda fasalka ugu say.

Jawaabha Laylis 1.6

1.

	Tiro Idil	Marka loodhaweeyo Tobnaad	Marka loo dhaweeyo boqolaad	Marka loo dhaweeyo kunnaad
b.	2348	2350	2300	2000
t.	56754	56750	56800	56000
j.	89987	89990	90000	90000
x.	45528	45530	45500	4600
Kh.	525905	525910	525900	526000
d.	933273	933270	933300	933000

2.

	Tiro idil	Marka tobnaad loo dhaweeyo	Marka boqolaad loo dhaweeyo	Marka kunnaad loo dhaweeyo	Marka toban kunnaad loo dhaweeyo	Marka boqol kunaad loo dhaweeyo
b.	412,317	412,320	412,300	412,000	410,000	400,000
t.	555,705	555,710	555,700	556,000	560,000	600,000
j.	656,754	656,750	656,800	657,000	660,000	700,000
x.	744,392	744,390	744,400	744,000	740,000	700,000
Kh.	789,986	789,990	790,000	790,000	790,000	800,000
d.	845,529	845,530	845,500	846,000	850,000	800,000

CUTTUBKA **2**aad AFARTA XISAABFAL EE TIROOYINKA IDIL ILAA 1,000,000

HORDHAC

Cutubkii kobaad waxaan kusoo baranay tirooyinka idil illa 1,000,000 cutubkana waxay ku baran donaan sida loo raadiyo isu gaynta tirooyinka idil ee ilaa 1,000,000 ama wixii ka sareeya.

Intaa kadib waxay raadinayaan faraqa udhexeeya marka hal tiro idil laga jaro tiro idil oo kale.

Kadib marka aynu xaqiijino inay ka shaqayn karayaan isugaynta iyo kala goynta tirooyinka idil, waxay baranayaan dhufsanayaasha tirooyinka idil ee ka yar 1,000,000 ee halka god iyo labada god sida la iskugu dhufto. Cutubkan ardayda dhamaysata wuxuu siinayaa aqoon iyo xirfada tirooyinka idil ee halka-god leh iyo sida ay 10 ugu qaybin lahayeen

Ujeedooyinka

Kadib markay ardaydu bartaan cutubkan kadib waxay:-

- Isu gaynayaan tirooyinka idil ee gaadhaya ilaa 1,000,000
- Isku dhufanayaan tirooyinka idil ee gaadhaya ilaa 1,000,000
- Isku qaybinayaan tirooyinka idil ee halka god ee gaadhaya ilaa 1,000,000 islamarkana u qaybinayaan 10

Kaabayaasha barista

Kaabayaasha waxbarasho ee uu ubaahan yahay barista cutubkani.

2.1 ISU GAYNTA IYO KALA GOYNTA TIROOYINKA IDIL ILAA 1,000,000

Waaqtiga loo qoondeeyay (11 xiso)

Ujeedooyinka gaarka ah

Casharkan kadib ardaydu waxay:-

- *Soo saari karayaan isugaynta laba tiro oo idil ilaa 1,000,000*
- *Soo saari karayaan faraqa laba tiro oo idil ilaa 1,000,000*
- *Furfurayaan masalooyinka iyaga oo isticmaalay hormo galinta isugaynta*
- *Ina tusayaan inay isugayntu tahay rogaalka xisaab falka kalagoynta.*
- *Furfurayaan masalooyinka iyaga oo isticmalaya isugaynta iyo kalagoynta.*

Erayada muhiimka ah

Isugayn laga gooye: ka weyn ka yar lagooye; faraq; astaanta kala hormarinta; astaanta hormogalinta, rogaal xisaabfaleed.

Hordhac

Cutub hoosaadkan waxaa fiiro gaar ah lasiiyay laba arimood. Kuwaas oo ah inay ardaydu hesho aqoon ay ku heli karaan isu gaynta iyo kala goynta laba tirooyinka idil ka mid ah iyo inay kor uqaadaan xirfadooda isku gaynta iyo kala goynta tirooyinka

Hawlgalada baris-barasho

2.1.1. Isu gayn

Bilaabida iyoSoo jeedinta

cutubkii hore ardaydu waxay ku soo barteen isu gaynta dhufsanayaasha tirooyinka idil ee 1000; 10,000 iyo 100,000 aan ku xasuusino hal tusaale. Kan soosocda ayanan tusaale ahaan u adeegsan karnaa

Godka toban kumaad	Kumaad	Boqolaad	Tobnaad	Kowaad
4	5	6	7	3
3	0	0	0	0
7	5	6	7	3

Sida tusaalaha sare aad kusoo aragteen in la isku geeyo laba tiro oo idil:-

1.   Marka ugu horaysa waa in tirooyinka idil midba midka kale qiimaha godka ku haboon ugu hoos taxno ama hoos dhigno.

2.   Sharaxada kadib ardayda oo kuraastooda fadhiya in ay ka doodaan waa inaad ku amarto inay ka shaqeeyaan hadlaya waa inaad ku amarto inay ka shaqeeyaan hawlgalka

2.1.B. siday ardaydu tusaalihii sharaxaada ee hore ku soo arkeen waa in ka hore ardayda u sheegto in midba midka kale hoostiisa lagu qorayo god kasta qiimihiisa islamarkana godkii dhinaada hal god lagaga soo biirsanayo ay god kasta godkiisa la gaynayo

Shaqadooda waa in aad indho-indhaysaa adiga oo ku wareegaya kursi walba markay dhameeyaan hal qof oo kooxda matalaya ku soo dhaween inuu samuurada inagu tuso shaqadeeda. Shaqada kooxda inay sax tahay waxaad ku xaqiijisaa gacan taaga kooxaha kale. Haday jirto koox khaldantay si ay khaladkeeya iskaga saxaan dhamaan ardayda sidii tusaalayaashii 1 iyo 2 loogu adeegsanayey tus shaqadeeda. Kadibna haka shaqeeyaan tusaalaha 1 iyo tusalaha 2.

Jawaabta hawlgalka 2.1.B

4354
3325
7679

Waxaa jira hal shay oo muhiim ah oo ay tahay ardaydu inay fahmaan hanoqoto hawlgalka ama tusaalayaasha. Kaas oo ah tirooyinka la isku gaynayo ee midba midka kale la hoos dhigay in aan qiimaha godka la isku dhufanayo ha ogaadaan. Sidaa ay tahay si loo caawiyo shaqada kooxda ha lagu soo dhaweeyo inay ka shaqeeyaan hawlgalka 2.1. B

Astaanta isbarbardhiga shaqo ahaana waa sax, maxuu kakale khalad unoqday? Sababaha uu khaladka kunoqday intay gacanta taagan oo ay ka hadlan wakhti ku filan siiya. Godadka sida loo dhigayo waa in gabagabada lasiiyo layliska 2.1.1. B.waa in aad shaqofasal ahaan u siisaa . Haddii shaqada fasalka ay u waayaan wakhti ku filan hala tagaan guriga oo hakaga soo shaqeeyaan. Buugtoodana haloo saxo, haddii buugtooda maalin walba lasaxo waxay ku dhiiri galinaysaa inay laylisyada ka shaqeeyaan. Waxayna kaa caawinaysaa inaad ardayda kala saarto oo aad qaado talaabooyin sixida ee loo baahan yahay

Jawaabha shaqo kooxeedka

- Habka uu xamdi uga shaqeeyay ayaa sax ah. Waayo marka laba tirooyin jog la isugugaynayo godadka ay qiima rugeedkoodu isku midka yahay ayaa inta la isku hoos qoro dabadeedna inta koowaadka luga bilaaboo ayaa la isugeeyaa.

Jawaabaha layliska 2.1.1 B

b.	478	kh.	869,427
t.	2869	d.	718696
j.	37477	r.	358,997
x.	37,885	s.	768,154

Xeerka kala hormarinta ee isugaynta

Marka aad barayso astaanta kala hormarinta ee isugaynta waa in ardayda aad ku amarto inay fasalka gudihiisa kaga shaqeeyaan hawlgalka 2.1.t. isu gaynta natiijada B iyo T iyaga oo raadinaya ha isbarbardhigaan. Ugu danbayntana weedhahan soocoda waydii

- Jawaabta hawlgalka 1. b iyo 1.t ma isku midbaa?

- 1.b iyo 1.t maxay ku kala duwan yihiin? Laga yaabaa haddii ay amusnaantu badato waa sidee fadhiga isku geeyayaashu? Inta ay noqonayso wuu waydiin karaa.

- Jawaabta 1.j iyo 1.x waa isku mid baa?

- Waa isku mid fadhiga isku geeyayaashu,

- Saamaynbuu ka kala hormarinta gaynta isku bedelka isku geeyayaasha?

Kadib markan samayno su'aalo iyo Jawaabo noocan ah waxaa xal u qaadan karnaa in gacanta bidix and ku hayso 5 riyaal gacanta midigna ku qabsato 10 riyaal ardayda tusa. Isu gayntana waydiya. 5+10 = 15 intay yidhadaan haku qoraan samuurada. Hadaba lacagta gacanta bidix ku wareji gacanta midigta ta gacanta midigtana kuwareeji gacanta bidixda kadibna waydiiya kala hormarinta isu gaynta 10+5 = 15 sabuurada haku qoraan.

Inta kadib waxaad waydisaa guud ahaan hawlgalkii hore ha noqdo ama tusaalahan aad tusteen waxay ka heleen. Ugu danbayna gabogabada tirada sabuurada ugu qor. Hadii B + T ay noqdaan laba tiro idil B + T = T + B

Astaanta kala hormarinta tirooyinku mabadalayso isu gaynta.

Jawaabha hawlgalka 2.1 T

1.   b.   53 + 12 = 65   j.   374 + 123 = 497

      t.   12 + 53 = 65   x.   123 + 374 = 497

2.   Haa waa iskumid; hase yeeshe meelaba ay ku kala yaaliin way kala duwan yihiin.

3.   Haa, waa isku mid. Meelaha ay labada biirooyin ku kala yaaliin isku mid ma aha.

4.   Kala hormarinta biirooyinku mabedalo (ama ma saameeyo) wadarta.

Inta kadib, ardayda ku amar inay shaqsi ahaan fasalka dhexdiisa kaga shaqeeyaan layliska 2.1. T

Kormeerna ku samee shaqadooda. Ardayga ay ku adkaatana si deg deg ah uga caawi ka horay uga shaqeeyana u sax layliska. Ardayda deg-dega badan ee lasiiyay inay kashaqeeyaan hawlgalka 2.1. J ee astaanta hormo gelinta way dhirrigalin karta.

Jawaabaha layliska 2.1.1 T

1. b.   50   t.   160   2.   b.   80
    j.   7764   t.   422
    x.   15029   j.   6127
                                           x.   25012

Xeerka hormogalinta ee isu gaynta

Koox ahan ha ka shaqeeyaan hawlgalka 2.1. J si ay uga caawiso fahanka astaanta hormogalinta isugaynta.

Shaqada Fatxiya iyo Wacays in kasty kala duwan tahay, hase yeeshe Jawaabtoodu waa isku mid. Sidaa darteed marka aan isu gaynayno sadex tiro idil ah sideen ukala horaysiin lahayn xisaab-falada waxaad ugu horayn isu gaynaynaa laba tiro idil kadibna tirada sadexaad ayaa ugaynaynaa wadarta labada tiro ee idil isla markana tusaalayaal kala duwan oo dheeri ah ugu faahfaahi in la heli karo

isu gaynta saddex tiro oo tirooyinka idil ah.

Ugu dambayn astaanta hormo galinta sabuurada ugu gabagabe sida tirada soo socota

Haddii B,T iyo X ay yihiin tirooyin idil

$$(b + t) + x = b + (t + x)$$

Gabagabada kadib ha uga shaqeeyaan shaqsi ahaan hawlgalka 2.1.1. J kadibna waa in aad dabagal ku samaysaa shaqadooda adiga oo fasalka dhexdiisa ku wareegaya. Haday Jiraa arday horay udhamaysay ha loo saxo markay dhamaan ardaydu dhameyaan hakaga shaqeyaan sabuurada horteeda. Inta hadhayna ha qiimeyaan shaqada ardayda saxay iyo kaan sixin labadaba.

Jawaabaha layliska 2.1.1 J

1. b.   1822   2.   b.   40
    t.   4596   t.   152
    j.   36017   j.   3444
    x.   669996   x.   1111

Isugeyn tiro qaadasha leh

Ardaydu ilaa imika waxay ka soo shaqqynayeen soo saarista wadarta biirooyinkoodu ayn lahayn tiro qaadasho. Hase yeeshee iyaga oo sii wada barashada isugeynta tirooyinka imika wixii ka dambeeya waxay baranayaan habka loo raadiyo wadarta biirooyinkoodu leh tiro qaadasho. Waa in ardayda isugeynta leh tiro qaadasho. Casharka waxaad ku bilaabi kartaa Hawlgalka 2.1.x. Ardayda weydii inay raadiyaan wadarta $24 + 58 = $ _____. Dhawr daqiiqadood sii in iyaga oo koox koox ah ay falanqeeyaan oo ay soo saaraan jawaabta. Kadibna fursad u sii in habka ay uga shaqeeyaeen ay cadeeyaan. Ugu dambaynta tus sida looga shaqeeyo adiga oo u faah faahinaya habka looga shaqeeyey. Tusaalooyinka 5, 6 iyo 7, buuga xisaabta ee ardayda (bogga 29).

Taabaha qiimaynta

Marka aan samaynayno habka qiimaynta waxaa loo baahan yahay inaan ku xisaabtano dhamaan kartida ama firfircoonida looga baahan yahay ardayda. Waa inaan xaqiijino in ardaydu isugayn kara yaan laba tiro oo idil ee ilaa 1,000,000 ha noqdaan isugaynta tiro qaadasha leh iyo ta aan qoodashada lahyn. Sidaa darteed waxaan ku eegaynaa inaan qiimayno aqoontooda iyo xirfadooda casharka hanoqoto shaqo fasal, shaqo guri sidoo kale imtixaan yar oo tijaabo ah.

Ugu danbayn waxaa loo baahan yahay inaan qiimaayno inay si haboon ufahmeen astaanta kala hormarinta isu gaynta iyo hormo galinta islamarkana aan siino su'aalo ay ka shaqeeyaan hirgahinaya dhamaan astaamaha isku gaynta ardaydana waydiiso inay tusaale ka bixiyaan,

Jawaabaha layliska 2.1.1 X

1.   b.   2103
     t.   14003
     j.   43664
     x.   2594
     d.   216122

2.   b.   1382 Birr
     t.   5270
     j.   32991
.   x.   184170
     kh.   25425

2.1.2 Kalagoynta Bilaabida iyo soo jeedinta ee Kala goynta

Bukaabista iyo soo jeedinta casharka

Cutubka 1, 1000, 10,000 iyo 100,000 dhufsanayaasha noqonaya laba tiro oo idil inaga oo adeegsanayna qiimaha godadka tirooyinka siday midba midka kala uga jarayaan ee ay soo barteen hal tusaale ku fahamsiiya.

God-rugeedka kunnaadka	God-rugeedka boqolaadka	God-rugeedka tobnaadka	God-rugeedka koowaadka
6	0	0	0
−4	0	0	0
2	0	0	0

Habka looga shaqaynayo

1.   Marka ugu horaysa tirooyinka idil ee lagu siiyay ka ugu wayn marka hore qor islamarkana tirada lagoo yanay ah tasoo ah tirada yar ku hoos qor adiga oo god kasta ku beegaya godka ay isku qiimarugeedka yihiin.

2.   Waxaa loo baahan yahay in si haboon u fahamaan waa in aad ugu cel-celiso inay ka bilaabaan tirada wayn iyada oo laga jarayo mid kasta godkiisa.

Inta kadib ardayda waa in aad fartaa inay koox koox ahaan uga shaqeeyaan hawegalka 2.1.2. B. adiga oo dul wareegaya hadii ay jiraan arday xariiqa ka baxday u hagaajiya ugu danbayna labada kooxood nasiib ha usoo baxaan oo jawaabahooda iyo siday uga shaqeeyeen ha ina tusaan waydiiya inay leeyihiin kuwo kale oo tageeraya iyo kuwo kasoo harjeeda. U faahfaahi adiga oo tusaya ardayda labada heer ee aan kor kusoo sheegnay ee ahaa sida 401 looga jarayo 782. Uga shaqee tusaalayaasha 1iyo 2 oo la mid ah.

Xasuusi inay markasta jawaabahooda ku xaqiijiyaan faraqa + tirada laga jarayo = tirada wayn.

Jawaabaha hawlgalka 2.1.2 B

$$\begin{array}{r} 1125 \\ \underline{628} \\ 497 \end{array}$$

Ardaydu ha ka shaqeeyaan hawlgalka 2.1.2. iyaga oo ka doodaya kana wada hadlaya shaqo kooxeedka taas oo ah inay kala goyntu leedahay ama ayna lahayn astaanta Kala hormarinta.

Jawaabahoodana iyaga oo tusaale. Ku tageeraya ha faahfaahiyaan.

Kala goyntu waxay u yeelan wayday astaanta Kala hormarinta si fiican u fahansiiya.

Jawaabaha shaqo – kooxeed ka 2.2.2. B.

Kala goyntu ma laha astanta Kala hormarinta tusaale:- $10-5 \neq 5-10$

Ugu danbayn layliska 2.2.2 B shaqo fasal ahaan usiiya ardayda. Hadii wakhtigu xisadu ku filan waayo waxaad samayn kartaa intay shaqo guri ahaan in ay uqaataan ayna keenaan mar kastana shaqadooda qiimaha la ilaaliyo kuwa ka shaqeeynaya qiimo ha lasiiyo.

Jawaabaha layliska 2.1.2. B

b.	663	j.	100	kh.	$25{,}724 - 25301 = 423$
t.	4856	x.	20323	d.	844212

Kala goynta ay ka jirto amaahashada

Ardaydu ilaa imika waxay ka soo shaqeeyeen oo ay soo barteen kalaogoynta aan amaahshada lahayn. Imika wixii ka dambeeya waxay baranayaan kala goynta amaahashada leh. Waxaa loo baahan yahay in ardayda aad xasuusisid in xisaabtii fasalka 3ᵃᵃᵈ ay ku soo barteen kalagoynta maaahashada leh. Si aad u qiimaysid awooda xasuustooda oo isla markaana gogoldhig kugu noqota. Ku dhiiri gale in ardayda dheski ku wada fadhidaa ay koox ahaan u falanqeeyaan oo ay ka shaqeeyaan Hawlgalka 2.1.2.t ee buuga xisaabta ee ardaydga (bogga 33). Waqti ku filan marka aad siisid dabdeed lab arday oo laba kooxood ka kala socota kolba midkoodu, fasalka u soo bandhigo ku amar. Ugu dambaysta sida looga shaqeeyo si tafatiran usoo ban dhig. Intaas kasakaw Tusaalaha 2 ee ku yaala buuga xisaabta ee ardayga (bugga 33) sabuurada ku qor oo habka looga shaqeeyey fasalka u faahfaahi.

Xasuusnow (ogow)

Waxaa dhici karta in ardaydu tirada ay soo amaahdeen kadib ay ilaawaan inta u yahay ama ka ay ka soo amaahden inta ugu hadhay. Sidaa datreed tirada marka ay soo amaahdaan kadib inta aytahay ama inta ku hadhay tirada ad ayey si caalaamad ahaan ku qoran karaan godka ku haboon ay baranayaan lagu siiyay su'aal iyo Jawaab ahaan ha uga shaqeeyaan.

Jawaabaha hawlgalka 2.1.2 T

$93 - 48 = 45$

Ugu danbayn si ay gartaan kala goynta si fiicana ugu barbartaan fasalka dhexdiisa ha kaga shaqeeyaan layliska 2.1.2. T. ku dul wareeg oo ilaali islamarkaana xaqiiji

Maadama ay muhiim tahay inay dhamaan ardaydu ka shaqeeyaan isu gaynta kala goynta. Haddii arday kooban fahmi waydo marka hore fahansii godka kowaad kadibna godka tobnaad oo kaliya; inta waxaa dheer amaahda godka koobaad iyo godka tobnaad tusaalayasha soo socda heerba heer adigo usiinaya ha bartaan. Haadii ay Jiraan arday horay ufahamtay casharka u abuur xaalado haboon oo ay saxiibadood casharka ku faham siiyaan.

Jawaabaha layliska 2.1.2. T

1.	b.	288	x.	92858	
	t.	2894	kh.	933787	
	j.	50939	d.	209598	
2.	b.	830	x.	18690	
	t.	313	kh.	1000	
	j.	12289	d.	1000	
			r.	28645	

Taabaha qiimaynta

Cutub hoosaadka maxaa ardayda looga baahan yahay inay fahmaan? Xirfadee ayaa inay kabciyaan looga uga baahan yahay? Waxaan muhiim ah in ujeedooyinka lagu sheegay hordhaca cutub hoosaadka aan xisaabt a ku darsano aan ardayda qiimayn.

Waxaa ardayda looga baahan yahay inay ka shaqeeyaan masalooyinka ee saamaynta ay leedahay isku gaynta ha noqoto ama saamaynta ay leedahay kala goynta.

waxaa looga baahan yahay inay gartaan tirada wayn = tirada laga goyay + faraqa isla- markana jawaabahooda ay waafajaan khibradan waxaa la inooga baahan yahay inaan ogaano inay garanayaan inayna kala goyntu lahayn astaanta isku bedelka. Sidaa darteed waxaa muhiim ah inaad casharkan ku qiimayso shaqo fasal, shato guri, shaqo kooxeed iyo tijaabo ahaan.

Adiga oo ku salynaya natiijooyinka qiimaynta waxaa haboon inaad samayso caawimada ay ubaahan yiihiin.

2.2 ISKUDHUFASHADA TIROOYINKA IDIL EE TARANOODU KA YAR YAHAY 1,000,000

Ujeedooyinka

Markay bartaan cutub hoosaadka kadib:

- *Waxay isku dhufanayaan tiro hal god ah iyo tiro kalo idil oo tarantoodu*
- *Waxay isku dhufanayan tiro laba god ah iyo tiro kalo idil oo tarantoodu ka hoosayso 1,000,000.*
- *Waxay tusaale ku fadaynayaan xeerarka (astaamaha) kala hormarinta iyo hormogalinta ee isku dhufsahsada.*
- *Waxay furfurayaa masalooyin ay ku hirgalinayaan xisaab falka isku dhufashada iyaga oo isticmaalaya tirooyin idil oo gaadhaya ilaa 1,000,000 .*

Erayada muhiimka ah

Taranka; dhufsane; astanta kala hormarinta isku dhufashada; astanta hormagalinta isku dhufashada.

Hordhac

Horay ardaydu waxay u soo barteen sida 1000; 10,000 iyo 100, 000 iyo tirooyinka 1,2,3,4,5,6,7,8, iyo 9 la isugu dhufto si ay u helaan dhufsanayaasha 100,000

Tusaale: $1000 \times 3 = 3,000$

$$10,000 \times 3 = 30, 000$$

$$100,000 \times 3 = 300,000$$

Cutub hoosaadakana waxay ku baranayaan siday iskugu dhufan lahaayeen dhufsanayaasha tirooyinka idil ee ka hooseeya 1,000,000 ee ah hal iyo laba astiro oo tiro idil.

Waxqabadka baris – barasho

2.2.1   Isku Dhufashada tiro hal-god ah iyo tirooyinka idil ee tarankoodu ka yar yahay 1,000,000

Bilaabida iyo soojeedinta.

Waa laga bilaabi kara casharka hawlgalka 2.2 B. Ardayda ku fadhida laba dheskiyo kala danbeeya kooxahaan way ushaqeyn karaa. Marka la siiyo wakhti ku filan kadib jawaabahooda u sharax siiyaan ardayda. Ugu danbayntana hala fahansiiyo habka shaqo ee saxda ah. Tusaale ahaan 30×7

- Marka ugu horaysa kor ka mari dhufsanaha wayn hoostana mari dhufsanaha yar adigo labadaba ku qoraya qiimaha godkooda
- Kadib adiga oo ka bilaaboya godka koobaad oo dhamaan astiraha dhufsanaha wayn ku dhufanaya 7 waa in isdaba joog ah u fahansiiso inay dhufsaneyaasha ku qoraan qiima-rugeedka ku haboon

Jawaabaha hawlgalka 2.2 B

b. $30 \times 2 = 60$ ukun ah ayuu hayn karaa   t. $30 \times 4 = 120$ ukun ah ayuu hayn karaa

j. $30 \times 7 = 210$ ukun ah ayuu hayn karaa   x. $30 \times 9 = 270$ ukun ah ayuu hayn karaa

Hawl galkan kadib tusaalaha 1 iyo 2 si su'aal iyo jawaab ahaanka gacansaa si ay uga shaqeeyaan ardaydu:

Ardayduna

- Waa inay dhufsanaha wayn kor ku qoraan dhufsane yaraha hoos ku qoraan.
- Waa inay si fiican u xasuusnadaan inay dhufsanaha yar ku dhuftaan dhamaan asitrada dhufsanaha wayn iyaga oo ka bilaabaya godka koobaad jawaabtana ay dhigaan qiimaha godka ku haboon.

Kadib markay fahamaan tusaalayshan shaqsi ahaan ha uga shaqeyaan layliska 2.2. B. siday uga shaqayn lahaayeen saamaynta ay leedahay tiro qaadasholayliskan. ee xisaab falka isku dhulfashada si haboon ha u bar bartaan.

Jawaabaha layliska 2.2. B

b.   222   x.   4444   b.   60006

t.   696   kh.   9999   s.   77077

j.   4404   d.   50505   sh.   8888

Isku Dhufashada Ay Ku Jirto Tiro Qaadashada

Ardaydu ilaa imika waxay soo barteen oo ay ka soo shaqeeyeen masalooyinka iskudhufasho ee aan lahayn tiro qaadasho. Imikana waxay baran doonaan sida loo furfuro masalooyina la xidhiidha isku dhufashada leh tiro qaadasho. Sidaas darted casharka baristiisa waxaad ku fulin kartaa adiga oo fasalka soo bandhigaya sida looga shaqeeyey Tusaalaha 5^{aad} ah isku dhufashada 5×432. Marka laga shaqaynayo isku dhufashadan u cadee ardayda in labada tiro la isku qoro iyadao ta weyn kor ta yarna hoos lagu qorayo.

432
$\times$ 5
‾‾‾‾
2160

- $5 \times 2 = 10$ (0 ta godka koowaadka intaan ku qorno ay 1 ka qaadaynaa oo aan ugeynaynaa taranta laga helo godka tobnaadka).
- $5 \times 3 = 15$ (15 ka waxaan ugaynaynaa 1 kii aan soo qaadnay waxayna markaa noqon 15 + 1 = 16. Sidaas darted 6da intaan qorno ayaan 1 ka ugeynaynaa taranta godka boqolaad.)
- $5 \times 4 = 20$ (20 ka waxaan ugaynaynaa 1 kii aan soo qaadnay waxayna noqon 20 + 1 = 21. Sidaas darted 1 ka godka boqolaadka 2da nu godka kunnaadka ayaan ku qoraynaa.)

Sidaas si la mid ah marka ay tusaalooyin kale uga shaqeeyaan dabadeed layliska 2.2. t shaqo faal ahaan hu uga shaqeeyaan. Marka ay ka shaqaynayaan si aad u fiirisid sida ay uga shaqaynaan kor meer ku same fasalka oo isla markana caawi ardayda leh baahida gaarka ah.

Jawaabaha layliska 2.2.t

1. b. 892
      t. 1720
      j. 14124
      x. 21532

   kh. 35042
   d. 53880
   r. 711112
   s. 49086

2. $1250 \times 7 = 8750$ 3. $1835 \times 9 = 16515$

Taabaha qiimaynta

Dhufsanayaasha ugu muhiimsan ee lagu qiimaynayo ardayda ee ka hooseeya ilaa 1,000,000 ee tirooyinka idil ee kakooban halka astiro may isku dhufan karaan mise iskuma dufan karaan madaama uu ka had layo waa in aad u adeegsataa habab kala duwan tusaale ahaana ha noqoto shaqo kooxeed, shaqo shaqsiyeed dul wareeg oo ufiirso shaqada ay qabanayaan. Usax shaqada fasalka iyo shaqada guriga, intay sabuurada usoo baxaan hakaga shaqeeyaan, u abuur tartan su'aal iyo jawaaba oo koox koox fasalka dhexdiisa oo ay isku qiimayn karaan

2.2.2 Isku dhufashada tiro laba god ah iyo Tirooyinka idil oo Tarankoodu ka yar yahay 1,000,000

Bilaabida iyo soo jeedinta

Kaidb markaad xasuusisid in ardaydu ay soo barteen isku dhufashada tiro idil iyo tro hal god ah u falanqee in qayb hoosaadkan ay ku baran doonaan sida tiro idil iyo tiro laha god ah la isugu dhufto. Markaad u sharaxdid dabadeed. Ku amar ardayda laba dheski oo isku xiga ku fadhida koox ahaan inay uga shaqeeyaan Hawlgalka 2.2.t. Sidaan horay u soo aragnay inkasta oo sikasta oo aan isugu hoos qornaba ayn taranta badalaynin hadana waxaan doorbiday naa in 31 kor 12 kano hoos u qorno.

$$31$$
$$\times 12$$
$$\overline{62}$$
$$31$$
$$\overline{372}$$

1aad $2 \times 1 = (2 \, Gadka \, koobaad \, ku \, hoos \, qor)$

2aad $2 \times 3 = 6 = (6 \, godka \, tobnaad \, ku \, qoe)$

3aad $1 \times 1 = 1 (1 \, godka \, tobnaad \, 6 \, ku \, hoos \, qor)$

4aad $1 \times 3 = 3 \begin{pmatrix} 3 \, kuqor \, godka \, boqlaad \, ee \\ xaga \, bidix \, ee \, 1 \end{pmatrix}$

5^{aad} (jog isugu gee 2 + 0 = 2, 6 + 1 = 7, 0 + 3 = 3) adiga oo raad raacaya sida hawlgalkan looga saqeeyey fasal ahaan inyo guri ahaan uga shaqeeyaan ku amar.

Jawaabaha layliska 2.2 J

1. b. 693
      t. 1089
      j. 3936

   x. 4824
   kh. 98943
   d. 53064

   r. 624,123
   s. 910,592
   sh. 226,528

2. $50 \times 24 = 1200$
3. $350 \times 11 = 3850$

Samaynta ay keento tiro qaadasho xisaabfalka iskudhufashada tirooyinka labada god leh. Ilaa hada ardaydu waxay soo arkeen siday iskugu dhufan lahayen samaynta tiro qaadasho ku leedahay tirooyinka idil ee labada god leh. Kadibna hordhaca ugu sheeg inay xisaab falada is ku dhufashada tirooyinka laba astiro leh ayaan ku baran donaa cashirkan sharaxaada kadib toos ardayda ku shaqee si su'aal iyo jawaba ah, tusaalaha 6B, T iyo J. tusaalaha ugu horeya waxad ku tusi kartaan adiga oo adeegsanaya sanduuqa godka qiimaha.

Lakiin tusaalayasha kale umabaahna in sanduuq lagaga shaqeeyo. Tusaala 45 x 23 sidan soo socota ayaad u fahan siin kartaa.

		Godka tobnaadka	Godka koowaadka
	×	4 2	5 3
1 9		3 0	5
1	0	3	5

$$45$$
$$\times\ 23$$
$$135$$
$$\underline{90}$$
$$\underline{1035}$$

Habka looga shaqeeyo

1aad 3 × 5 = 15 (5 aan godka koobaad ku qorno halkana (s) aan ugayno dhufsanaha godka tobanaad (15)

2aad 3 × 4 = 12 (12 + 1 = 13; 3 aan godka tobnaad ku qorno 1 godka boqlaad ayaan ku qoraynaa)

3aad 2 × 5 = 10 (0 aan ku qorno godka tobnaad 3 hoosteeda 1 isagana aan ugayno

dhufsanaha godka tobnaad)

4aad 2 × 4 = 8 (8 + 1 = 9 waxaan ku qorayna godka boqlaad ee 1 hoostiisa)

5aad hoos iskugu geeya god walba

- 5 + 0 = 5
- 3 + 0 = 3
- 1 + 9 10

Qaybta sadexaad: sida aay iskugu haboon yihiin isugu aadi

Tilmaan: su'aalaha soosocdo isugu aadi sida aay isku qaadan karaan ama waafaqsan yihiin dabadeed ku qor jawaabta goobta banaan.

Iskudhufashada tiro 2-Godle ah iyo tiro kalo idil oo leh tiro qaadasho

Ardayda xasuusi in ay ilaa hada soo baranayeen isku dhufasho ka kooban tiro 2-godle ah iyo tiro kaloo idil.

Imika wixii ka danbeeya na u cadee in ay casharkan ku baran doonaan habka la isugu dhufto tiro 2-godle ah iyo tiro kale. Casharka baristiisa waxaad ku bilaabi kartaa oo aad gogoldhig ugu dhigi kartaa adiga oo tusaalaha b, b, t, y ee buuga xisaabta ardayga. Sida looga shaqeeyey fasalk ugu soo bandhigaya. Ugu horaant adiga oo adeegsanaya, shaxda qiima rugeedka ardaydu waad tusi kartaa sida shaqada iskudhufashadu loogu shaqeeyo. Kadib tusaalooyinka ku xiga adiga oo aan isticmaalin shaxda qiima rugeedka waad tusi kartaa sida looga shaqeeyey.

Tusaale ahaan waxaad u falanqayn kartaa sida iskudhu fashada 45 $\times$ 23 looga shaqeeyey ee hoos lagu muujiyey.

		Godka Tobnaadka	Godka Koowaadka	
	$\times$	4	5	45
		2	3	$\times$ 23
	1	3	5	135
	9	0		90
1	0	3	5	1035

Habka looga shaqeeyey

Talaabada 1ᵃᵃᵈ $3 \times 5 = 15$ (5 ta inta godka koowaadku lagu qoro ayaa 1ka inta la qaado loo geeyaa (lagu daraa) taranka godka tobnaadka)

Talaabada 2ᵃᵃᵈ $3 \times 4 = 12$ (12 + 1 = 13, 3 da inta godka tobnaadka lagu qoro ayaa 1ka na godka boqolaadka lagu qoraa.)

Talaabada 3ᵃᵃᵈ $2 \times 5 = 10$ (0 ta, 3dii godka tobnaadka lagu qoray inta lagu hoos qoro ayaa lka na loo geyn (lagu dari) taranka tobnaadka)

Talaabada 4ᵃᵃᵈ $2 \times 4 = 8$ (8 + 1 = 9, 9 ka 1 kii lagu qoray godka boqolaadka ayaa lagu hoos qori).

Talaabada 5ᵃᵃᵈ God kasta tirooyinka lagu qoray ayaa joog hoos la isugu geyn.

$$\begin{array}{r} 5 \\ + \ 0 \\ \hline 5 \end{array}$$

$$\begin{array}{r} 3 \\ + \ 0 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 1 \\ + \ 9 \\ \hline 10 \end{array}$$

Sidoo kale tusaalooyin kale markaad ugu shaqaysid dabadeed iyaga oo koox koox ah, ha ka shaqeeyaan shaqo kooxeedka 2.2 b. Tabihii ilaa imika ay soo barteen si ay u isticmaalaan waa in aad u faahfaahisaa. Kadibna waa in aad fursad siisaa si ay jawaabahooda ardayda ugu cadeeyaan. Ugu danbaysta waa in aad u faahfaahisaa habka looga shaqeeyey.

Taasi kadib layliska 2.2.x, sua'alo qaarkood shaqo guri ahaan ah u sii. Maalinta xigta iyaga oo koox koox ah, inay shaqadooda isbarbardhigaan fursad sii. Ku dhiiri gali si ay khaladaad kooda isku saxaan.

Jawaabaha Layliska 2.2.x

1.   b.   1035   t.   2730   j.   25335   kh.   75130   d.   195536
        r.   409056   s.   503384
2.   3458 Birr
3.   63180 Birr

Tabaha Qiimaynta

Cinwaanka cashar hoosaadkan waxaa ardayda lagu qiimayn in ay fahmeen habka la isugu dhufto tiro 2-godle ah iyo tirooyinka idil oo ay tarantoodu ka hoosayso 1,000,000. Sidaas darteed si aad u qiimaysid kartidooda la xidhiidha isku dhufashada tiro 2-godle ah iyo tirooyinka idil oo aan lahayn ama leh, tiro qaadasho waxaa loo baahan yahay in aad siisid si ay ugu shaqeeyaan laylisyo kala duwan oo aad ku qiimayn kartid awoodooda iskudhufasho.

2.2.3 Xeerarka (Astaamaha) Kala hormarinta iyo hormogalinta ee iskudhufashada

Casharkan baristiisa waxaad ugu gogol dhigi kartaa adiga oo tusaale ahaan u soo naqtiimaya labadii astaamood ee isugeynta ee ay hatan ka hor soo barteen. Tusaale ahaan $20 + 30 = 30 + 20$ waa xeerka (astaanta) loo yeqaano astaanta kala hormarinta ee isugeynta. Sidoo kale $(20 + 30) + 100 = 20 + (30 + 100)$ waxaa la yidhaahdaa astaanta hormogalinta ee isugeynta. Marka aad sidaas ugu naqtiintid dabadeed waxaad ku dhiri galisaa in iyaga oo koox koox ah ay falanqeeyaan oo ay ka jawaabaan Hawlgalka 2.2. Suaasha hawlgalkan sida ay muujinayso shaqo maalintiiba mushaar 80 Birr lagu qaato haddii 30 maalmood laga shaqeeyo waxaa laga heli lacag dhan $80 \times 30 = 2400$ Birr.

Sidoo kale shaqadaas iyada ah maalintiiba mushaar 30 Birr iyada oo la qaadanayo haddii 80 maalmood laga shaqeeyo waxaa laga heli lacag dhan $30 \times 80 = 2400$ Birr. Sidaas darteed waxaa loo baahan yahay in aad ardayda u muujisid in natiijada la helay ay isku mid tahay. Taas oo ah $80 \times 30 = 30 \times 80 = 2400$. Waa in aad ardayda ku hogaamisid in ay u fiirsadaan sidii isugeynta oo kale marka laba tiro la isku dhufto in ayna tarantu isbedalayn haddii isirida meelahooda la kala bedelo. Faahfaahinta iyo shaqada Hawlgalka sare waxaa loo baahan yahay in aad ku soo gabagabeysid qadob kan hoose.

> Xeerka (astaankta) kala horomarinta ee iskudhufoshada
>
> Haddii ay b iyo t ay yihiin tirooyin idil
>
> b × t = t × b markasta waa run.

Fikrad xisaabeed kan nuxurka ah si ay u hantaan Layliska 2.2 kh in ay buugaagtood inta ay ku qoraan ay ka shaqeeyaan. Ku amar. Dheskiyada ay ku fadhiyaan inta aad kor meertid sida ay ugu shaqeynayaan. Hubi oo isla markaana u sax. Ardayda baahida gaarka ah leh waa in aad siisaa caawimo gaar ah.

Jawaabaha Layliska 2.2kh

3.   b. $43 \times 55 = 55 \times \boxed{43}$

     t. $\boxed{26} \times 445 = 445 \times 26$

     j. $1000 \times 58 = 58 \times \boxed{1000}$

     x. $74 \times \boxed{456} = 456 \times 74$

Xeerka (Astaanta) hormogalinta ee iskudhufashada

Casharka waxaad ku bilaabi kartaa Hawlgalka 2.2.x Ardaydu iyaga oo laba laba isu kooxaynaya ku amar in ay ka shaqeeyaan hawlgalka. Labada arday midkood ha ka shaqeeyo 'b' da ka labaadna ha ka 't' da. Kadibna natiijadooda ha isbarbar dhigaan. Ardayga hore wuxuu marka u horaysa ka shaqeeyey isku dhufashada 5 × 12 ka la-baadna wuxuu marka u horaysa ka shaqeeyey iskudhufashada 12 × 7. Hasa yeeshee ugu danbaystii jawaabtoodu waa isku mid. Sidaas darteed haddii marka ina la siiyo saddex isiro aan horta labada u horeeya ama labada u danbeeya inta aan isku dhufano ugu danbaysta aan isirka saddexaad ku dhufano ardaydu ha u fiirsadaan in natiijada la helayaa ay isku mid tahay.

Aragtidaas sare sidan ayaa loo soo gabagabayn karaa.

> Xeerka (astaanta) hormogalinta ee isku dhufashada
>
> b, t iyo j haddii ay yihiin tirooyin idil

Marka aad sidaas usoo gabagabaysid dabadeed ardayda ku amar in iyaga oo koox koox ah ay ka shaqeeyaan Layliska 2.2 ( )

Tabaha Qiimaynta

Ardaydaadu si taaba gal ah ma u fahmeen astaamaha kala hormarinta iyo hormogalinta ee isku dhufashada? Astaanta kala hormarinta iyo astaanta hormogahnta ee isku dhufashada miyey qeexi karaan? Sided u qiimayn aqoontooda ku saabsan labada astaamood? Si aad taasi u ogaatid miyaad weydiin in ay qoraan tusaalooyin muujinaya astaanta kala hormarinta ee isku dhufashada iyo

astaanta hormogalinta ee isku dhufeeshada? Mise waxaad weydiin in ay ka shaqeeyaan oo ay hubiyaan su'aalaha ku saabsan labada astaamood? Tabahaas kor lagu soo tilmaamay dhamaantood waa la isticmaali karaa, si loo qiimeeyo heerka aqoonta ee ay ardaydu u yeesheen labada astaamood. Intaas waxaad ugu dari kartaa in aad weydiisid in su'aalahan soo socda jawaabtooda ay tirooob ahaan (afka) ka sheegaan iyaga oo falanqaynaya.

Waa maxay xeerka (astaanta) kala hormarinta ee isku dhufashada?

Marka aan isku dhufanayno tirooyinka idil sidee ayaan uga faaiidaysan karna astaanta hormogahnta ee iskudhufashada si ay inoogu fududayso hawsha iskudhufashoda? Ardaydu jawaabaha ay ka bixiyaan su'aalahan waxaan ku qiimayn karnaa heerka fahanka ardayda.

Jawaabaha Layliska 2.2d

2.	b.	run	t.	run	j.	been	x.	run		
3.	b	8	t.	55	j.	70	x.	31	Kh.	14

2.3   ISUQAYBINTA TIROOYINKA IDIL ILAA 1,000,000 IYO TIRO 1-GOD AH IYO TIRADA 10

Waqtiga loo qoondeeyey 15 xiisadood

Ujeedooyinka gaarka ah ee casharka

Casharkan barashadiisu marka uu dhamaado dabadeed waxay awood u yeelan doonaan

- *Isuqaybinta tiro idil oo loo qayinayo tiro 1-god ah oo lahayn hadhaa.*
- *Isuqaybinta tiro idil oo loo qaybinayo tiro 1-god ah oo leh hadhaa.*
- *Adeegsiga xidhiidhka ka dhexeeya iskudhufashada iyo Isuqaybinta si ay u hubiyaan saxnimada qaybta isuqaybinta.*
- *Furfurista weedh xisaabeedyada ah Isuqaybinta Tirooyinka idil ilaa 1,000,000 iyo Tirooyinka min 1-god ah.*

Ereyada Muhiimka ah

Isuqaybinta, Laqaybshe, qaybshe, qayb, hadhaa.

Hordhac

Qayb hoosaadkan, waxay ardaydu ku barandoonaan hababka looga shaqeeyo isuqaybinta tirooyinka idil ilaa 1,000,000 iyada oo loo qaybinayo tiro 1-god ah iyo tirade 10, kuwa aan hadhaaga lahayn iyo kuwa lehba.

Waxqabadyada Baris Barasho

2.3.1 Isuqaybinta tirooyinka Idil ilaa 1,000,000 iyada oo loo qaybinayo tiro 1-god ah

Casharkan baristiisa waxaad ku bilaabi kartaa adiga oo ku dhiri galinaya dheeski walba ardayda ku wada fadhidaa in ay koox ahaan u falanqeeyaan oo ay uga shaqeeyaan Hawlgalka 2.3 b. Su'aalaha 'b' ilaa 'd' sida looga shaqeeyo kooxaha arday ka mid ahi inta ay soo baxaan ardayda fasalka ha u faah faahiyaan. Kuwa kale na faahfaahintaasi in ay run tahay iyo inkale ha saxaan. Ugu danbays in jawaabta saxa ahi ay tahay sidan hoos. Lagu muujiyey inta aad u sheegtid casharka soo gabagabee.

Kadib waxaad u gudbi kaartaa tusaalaha 1ᵃᵃᵈ, Tusaalaha ku saaabsan isuqaybinta 232 ÷ 4 iyo kuwa la midka ahba marka ay ka shaqaynayaan waxaa loo baahan yahay in ardayda aad ku hogaamisid in ay fiira gaar ah u yeeshaan hababka iyo xirfadaha ku haboon in la garto marka tirooyinka la isuqaybinayo.

Tusaale ahaan marka 232 loo qaybinayo 4 talaaboyinka lagu muujiyey Tusaalaha 1ᵃᵃᵈ ee ku yaala buuga xisaabta ee ardayga habka loogu tafatiray waa in aad adiga oo ku celcehnaya aad ardayda fahamsiisaa. Ardaydu caalaamada isuqaybinta intay isticmaalaan oo laqaybshaha iyo qabshaha meela hooda ku hahoon intay ay ku qoraan oo shaqada isuqaybinta si habsan uga baaraan dagi karaan marka ay tusaalooyin iyo laylisyo badan inta ay ku celcehyaay ay ka shaqeeyaan.

Sidaas darteed waa in aad Tusaalooyinka 2, 3 iyo 4 aad mid walba hab weydiin iyo celin ah aad ugu soo bandhigtaa oo aad ugu shaqaysaa. Ardayda iyaga oo koox koox ah ku amar in ay falanqeeyaan oo ay ka shaqeeyaan. Shaqo kooxeedka 2, 3 b iyo Layliska 2.3 ( ). Sida ay uga shaqeeyeen na waa in aad u saxda ama aad kormeer ku samaysaa. Ardayda fahankoodu daaha waxaad ku dhirigahn kartaa adiga oo su'aalo fudfudud inta aad u doortid aad ka shaqaysiisaa.

2.3.2 Isuqaybinta Tirooyinka Idil ilaa 1,000,000 iyo tirada 10

Cashar hoosaadkan waxay ardaydu ku baran doonaan, habka tirooyinka idil loogu qaybin karo tirada 10. Casharka baristiisa waxaad gogoldhig uga dhigi kartaa Hawlgalka 2.3t. sidaas awgeed ku amar ardaydu iyaga oo koox koox ah inay ka shaqeeyaan hawlgalka. Ku dhiiri gali inay u fiirsadaan jawaabaha ay heleen. Ku hogaami inay aad ugu fiirsadaan jawaabta ama qaybta isuqaybinta ee ay heleen iyo laqaybshuhu waxay ku kala duwan yihiin. Weydii ardaydu inay afka kaaga sheegaan isbadalka lagu samayn karo laqabshaha si loo helo jawaabta ama qaybta. Ugu danbaysta u sharrax ardayda in "marka tiro idil oo ah dhufsaneha 10 loo qaybiyo tirada 10 qaybtu ama jawaabtu waa tirada ka soo baxda marka laqaybsha laga tirtiro ama laga masaxo astiradiisa koowaadka oo ah tirada 0". Markaad sidaas ugu cadaysid dabadeed Tusaalaha 4ᵃᵃᵈ waad u gudbi kartaa. Tusaalahan in laba wado looga shaqayn karo tus ardayda. Wadada hore waxay tahay in jawaabta ama qaybta la soo saari karo marka laqaybshaha laga masaxo ama laga reebo astirada ku taala godka koowaadka. Wadada labaadi na waxay tahay iyada oo sida caadiga ah, calaamada isuqaybinta la isticmaalo la isuqaybiyo. Xirfadan in ay ardaydu aad u sii kobcistaan ku amar inay Layliska 2.3.b fasalka kaga shaqeeyaan.

Isuqaybin leh Hadhaa

Ardayda xasuusi in ilaa haatan ay soo barteen isuqaybinta tirooyinka idil iyo tirada 10 ee aan hadhaaga lahayn. Hadaba imika in ay casharkan ku baran doonaan isuqaybinta hadhaaga leh, u cadee. Markaad sidaas ugu sheegtid dabadeed waxaad casharka ku bilaabi kartaa Hawlgalka   2.3 j. Ardayda ku amar inay hawlgalka ka shaqeeyaan iyaga oo koox koox ah. Ku dhiiri gali inay u fiirsadaan qaybta, hadhaaga iyo laqaybsha ha. Weydii inay heleen, tab ay si dhib yar oo dagdag ah ugu soo saari karaan qaybta iyo hadhaaga. Ugu danbaysta waa inaad natiijada Hawlgalka 2.3 J sidan ugu sharaxdaa. "Tiro idil oo astiradeeda koowaadku aanay ahayn eber marka loo qaybiyo tirade 10 hadhaagu waa astirada ku taala godka koowaadka ee laqaybshaha qaybtuna waxay noqon laqaybshaha intiisa kale. Sidaas ayaad casharka ku soo gabagabayn.

Tabaha Qiimaynta

Qayb hoosaadka 2.3 ee cutubkan ujeedooyinkiisa gaarka ah ee la filayo in ay ardaydu hanato adiga oo xasuusanaya waxaa loo baahan yahay in aad qorshaysatid sida ad u diyaarinaysid habka ku haboon ee ad ku qiimaynaysid inta ardaydu ay ka fahantay ujeedooyinka qayb hoosaaka ee cutubkan. Sidaas darteed si aad u qgaatid kartida ardayda ee la xidhiidha isuqaybinta tirooyinka idil oo loo qaybinayo tiro halgod ah oo hadhaa leh iyo kuwa aan lahaynba. Waa in aad siisaa laylisyo kala duwan oo isla markaana u saxdaa. Ku amar ardayda in inta ay qaataan laba tiro kasta. Islamarkaan intay iskudhuftaan isuna qaybiyaan ha ku tasen xidhiidhka ka dhaxeeya isuqaybinta iyo iskudhufashada.

Jawaabaha Laylisyada 2.3

b.	30	t.	65	j.	83	x.	4000	kh.	165
d.	837	r.	5000	s.	2604	sh.	8372	dh.	70000
c.	56047	g.	14391						

Jawaabaha layliska 2.3 t

b.   qayb = 3 hadhaa = 4
     hubin 34 = (3 × 10) + 4

t.   qayb = 26   hadhaa = 7
     hubin 267 = (26 × 10) + 7

j.   qayb = 72 hadhaa = 1
     hubin 721 = (72 × 10) + 1

x.   qayb = 665 hadhaa = 4
     hubin 6654 = (665 × 10) + 4

kh. qayb = 231 hadhaa = 7
     hubin 2317 = (231 × 10) + 7

d.   qayb = 893 hadhaa = 6
     hubin 8936 = (893 × 10) + 6

r.   qayb = 4602 hadhaa = 3
     hubin 46023 = 4602 × 10 + 3

s.   qayb = 3005 hadhaa = 6
     hubin 30056 = (3005 × 10) + 6

sh. qayb = 7989 hadhaa = 9
     hubin 79899 = (7989 × 10) + 9

dh. qayb = 14325 hadhaa = 1
     hubin 143251 = (14325 × 10) + 1

CUTTUBKA 3aad JAJABYO IYO JAJABTOBANLEYAAL

HARDHAC

Mar walba nolol-maalmeedkeena waxaa inala kulma cadadyo kuwaas oo aynaan ku sheegiin (cabbirin) tiro idil oo kaliya waynu ognahay, tirooyinka idil cadadyada aan u taagnayn waxaa lagu muujiyaa jajabyo ama jajabtobanleyaal ayaa loo adeegsadaa.

Tusaale

- Cadadka dhererka ee kayar halmitir marka looqoro mitir ahaan.
- Culayska kabadan 10 kg islamarkaana kayar 11 kg marka kilogiraam loo qoro
- Hal aale sonkor hadii loo qeybiyo 10 meelood oo isle'eg, saddex meelood,
- 100birr in kabadan islamarkaana kayar 101 birr marka cadadka lacagta loo qoro Birr ahaan

Tirooyinka aan adeegsanaynaa ma'aha tirooyinka idil, ee jajabayada amaa jajabtobanleyaasha layidhaa waa in aad ardayda ku hogaamisid, ardaydu tirooyinka waa in aad ardayda ku hogaamisid, ardaydu tirooyinka noocan oo kale marka ay laqabsadaan kadib tirooyinka noocan oo kale ah ay sawir ahaan kumuujiyaan islamarkaana isbarbardhigaan tirooyinkaas waa in aad ku hogaamisid, waxaa dheri ah marwalba nolol maalmeedkeena wax yaabaha inala kulma ee weedh-xisaabeedyo sida ay u kala horeeyaan adiga oo ufurfuraya ku hogaami ardayda,

| Ujeedooyinka cutubkan marka uu dhamaado kadib ardaydu waxaay awoodi doonaan inay. |

- Fahmaan in jajabyadu ay yihiin qaybha walax (hal shay)
- Isbarabrdhigaan jajabyada hooseeyahoodn iskumid ka yahay, u qoraan sida ay u kala horeeyaan.
- Isugeeyaan ama ay kalagooyaan jajabyada hooseeyahoodu isku mid ka yahay.
- Sheegaan jajbyada isudhigma
- Isbrbardhigaa tobnalayda,boqolayda iyo jajabtobanleyaasha
- Isbarabrdhigaan jajabtobanleyaasha leh laba god, u qoraan sida ay u kala horeeyaan.
- Isugeeyaan ama ay kala gooyaan jajabtobanleyaasha leh laba god.

Qalabka wax-barashada

Cutubkan si aad u barto ardayda waxa uu u baahan yahay qalabada waxbarashada

- Jaartiyo ku tusaya Shaxano sawiradoodu buuxan
- Liin ,Aale sonkor,iyo wax yaabaha u eg
- Jaartiyo muujinaya isbarbardhiga jajabyada
- Ku muujiyaan jajabyada xariiq tireedka dushiisa
- 10x10 labajibaarane wuxuu la mid yahay 100 meelood oo is le`eg islamarkaana loo adeesado marka la samaynayo jaartiyada
- Isu geynta iyo Kala goynta jaartiyo muujinaya
- Qalimaan badan oo muunad ahaan kala duwan
- Kaabayaal nashqadaysan
- Kaar biligle

3.1   JAJABYO QAYBO WALAX IDIL

Waqtiga loo qoondeeyay waa (4 xiso)

Ujeedooyinka gaarka ah

Marka uu dhamaado cutub-hoosaadkani ardaydu waxa ay awoodi doonaan in ay

- Walax buuxda u tibaaxaan jajab ahaan
- Qeexaan ama ay sheegaan sareeyaha iyo hooseeyaha jajabyada
- Kala soocaan sareeyaha iyo hooseeyaha jajabyada

Ereyada muhiimka ah:-   Jajab, Sareeye, Hooseeye,Jajab dhafan

Hordhac

Cutub-hoosaadka jajabku waxa uu yahay ayaad ku hogaamin jajabyada sida loo qoro iyo sida loo akhriyo si ay u bartaan ayaa larabaa, ardayda jajabyada si loo gu soo bandhigo tirooyinka idil ee aan la adeegsanayn marka ay ogaadaan oo ay aaminaan islamarkaana in ay adeegsadaan waa in lagu garansiiyaa, waxbarashada, habkan ah waxay kaqayb qaadataa kaqaybgalka ardayda si aad u wanaagsan

Barashadan ujeedooyinkeedu run ahaan in ay u hirgaleen si loo ogaado barashada habkan tusaalayaasha hawlgalda iyo laylisyada faafaahintooda ayuu ku kooban yahay.

Hawlaha Baris-barasho

Cutub hosaadkan jajabyada macnahooda oo tusaale lagu lamaaneeyey, kamid na tiroyinka idil in ay ka soocaan tusaalayaan, ardaydu fasalkii 3aad maadada xisaabta ee kusaabsanayd jajabyada si ay u xasuustaan, hawlgalka 3.1. ee buugga ardayga su'aalaha lagu siiyey koox-koox amaa shaqsi ahaan ay uga jawaabaan in loo suurogaliyo ayaaloo baahan yahay, su'aalaha oo buugga looga akhriyo ama samuurada loogu qoro waa lakaraa. Ardaydu si ay fikrado dheeraada u keenaan waa in aad dhiirigaliso ayaa lagaaga baahan yahay, ardaydu su'aalaha ayna fahmin waa in aad siisaa fursad ay kugu waydiiyaan su'aalaha ujeedada casharka in ay sifiican utaabo gasho ayay suuro galinay saa.

Jawaabaha Hawlgalka 1

1. Jajabku waa qayb shay buuxa oo laqeybiyay ka mid ah.

2. Jajabku waxa uu ka samaysamaa tirooyinka idil kuwa aana noqonayna in aan sheegno faa`iido ayey inoo leedahay

3. b) $\frac{1}{3}$ ama 1 lahoosdhigay 3 ama 1 loo qeybshay 3 (saddex-meelood hal)

   t) $\frac{1}{3}$ ama 1 lahoosdhigay 3 ama 1 loo qeybshay 3 (saddex-meelood hal)

   j) $\frac{1}{3}$ ama 1 lahoosdhigay 3 ama 1 loo qeybshay 3 (saddex-meelood hal)

   x) $\frac{2}{3}$ ama 2 lahoosdhigay 3 ama 2 loo qeybshay 3 (saddex-meelood laba)

Ardaydu marka ay xasuustaan waxbarashadii ay kusoo barteen fasalka 3aad kadib tusaalayaasha 1 iyo 2 u faahfahi jajabyada sida loogu muujiyo tirooyinka ama sawirada in lakaro islamarkaana jajabyada hooseeyaha iyo sareeyahooda in ay kala soocaan oo ay gartaan dadaal dheeraada ayaa lagaaga baahan yahay.

Adiga oo ku dabakhaya xaqiiqada jirta waa in aad xabad liin ah soo qaadataa, marka hore laba isle'eg iyada oo loo qeybshay, ardaydu waa in ay magacaabaan qeybta oo ay kusheegaan jajabahaan waa in aad samaysaa, liinta labaad loo qeybiyey afar meelood oo isle'eg, ardaydu qeybta in ay ku sheegaan jajab ahaan waa in aad samaysaa

Ardaydu iyaga oo qaabkan uga shaqeynaya waa in ay shaqsi ahaan tooda tusaale uga bixiyaan islamarkaana si ay isu waydaarsadaan fikradahooda waa in aad samaysaa. Tusaalaha 1 jajab is kudhafan oo dabeecad gooni ah leh, tusaalaha 2 na kaan ahay jabab is kudhafan in ay kala soocaan samee

Tabaha qiimaynta

Bixinta waxbarashada ardayda fasalka dhaxdiisa wabarashada aad ku bartay inay garawsadeen ama ay garteen si aad u ogaatid

- waa in aad samaysaa in ay ardaydu abuuraan tusaalayaal jajab ah dabadeedna ay qoraan, akhriyaana
- waa in aad samaysaa in ay kala soocaan sareeyaha iyo hooseeyaha islamarkaana jawaab ay kabixiyaan

Jawaabaha layliska 3.1

1. (b) $\frac{2}{4}$ (t) $\frac{2}{6}$ (j) $\frac{3}{5}$ (x) $\frac{4}{7}$ (kh) $\frac{4}{10}$ (d) $\frac{6}{18}$

2.

	Jajab	Sareeye	Hooseeye	Tiraab ahaan
B	$\dfrac{1}{12}$	1	12	Hal lahoosdhigay lab iyo toban
T	$\dfrac{3}{7}$	3	7	Saddex la hoosdhigay taddoba
J	$\dfrac{9}{20}$	9	20	Sagaal la hoosdhigay labaatan
X	$\dfrac{13}{30}$	13	30	Saddex iyo toban la hoosdhigay sodon
Kh	$\dfrac{30}{30}$	30	30	Sodon lahoosdhigay sodon

3.

b   t   j

x   kh
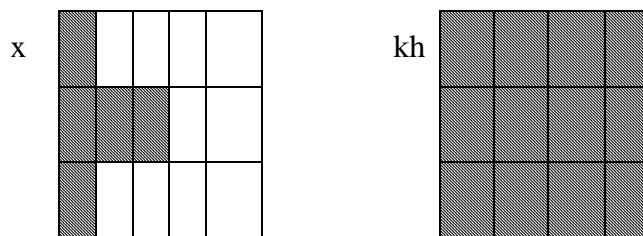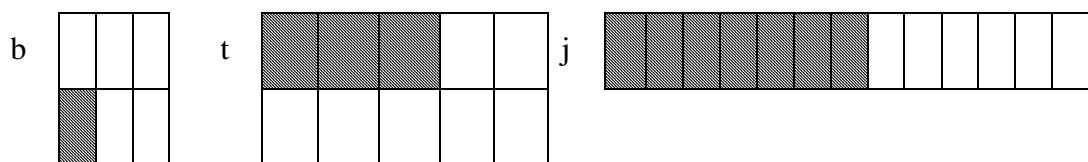
4. $\dfrac{1}{5}$

5.   b) $\dfrac{1}{16}$ t) $\dfrac{5}{16}$ j) $\dfrac{12}{16}$

3.2 ISBARBARDHIGGA IYO HOORSANAANTA JAJABYADA LEH HOOSEEYE ISKU MID AH

Ujeedooyinka

- Isbarbardhigan jajabyadaleh hooseeye isku midah
- U qoraan hoorsanaantooda jajabyadaleh hooseeye isku midah

Ereyada muhiimka ah:-   Jajabyada isudhigma

Hordhac

Cutub-hoosaadkani isbarbardhiga cadadka jajabyada iyo sida ay u kala horeeyaan oo loo qoro ayaad ku hogaamin.

Cutub. Hoosaadku wuxuu ku bilaabmayaa hawlgalka 3.2. ee lagugu siiyey buugga ardayga, ardaydu koox-koox ama shaqsi ahaan in ay uga shaqeeyaan waa in aad fartaa, sida ku muuqata hawlgalka. Jajayada in ay is barbardigaan waxaa kaa caawinaya iyaga oo isbarbardhigaya cadadka sawirada (shaxanada) una faahfaahi, hawlgalka waa in aad fartaa in ay kasoo shaqeeyaan, laba jajab kolka mid ">"ama "<" iyaga oo adeegsanaya waa in aad xaaladaha ugu haboon aad u habaysaa,

Hawlgalka 3.2. waanada kadib, ardaydu si ay iyagu u soo gunaanadaan waa in aad samaysaa, isbarbardhiga jajabyada iskumidka ah waxaa muhiim ah in ay sawiradooda ay isbarbardhigaan oo kaliye in ay tahay ardaydu in ay akhriyaan (baadhaan) waa in aad samaysaa…

Hawlgalkan kadib ardaydu waa in ay isbarbardhigaan shaxan sawireedyadooda kuwa ah iyo kuwa aan ahayn si ay u gartaan tusaaleyaasha 3 iyo 4 waa in aad faahfaahin kasiisaa.

Horey sidii aynu kusoo sheegnay waa in aad adeegsataa jaartiyo ladiyaariyey si ay ardaydu u xafido ayey suuro galinaysaa, ugu dambaysna layliska 3.2. shaqo-guri ahaan waa in aad usiisaa., sixitaan iyo faalo waa in aad siisaa. Ardaydu waxayaabaha ay lakulmeen ee ay fahmi waayeen fikir ahaan su'aalaha ku saabsan in aad kagudoonto una faahfaahiso waa arin lagama maarmaan ah,

Jawaabaha hawlgalka 3.2

1.   Dhamaan hooseeyayaasha jajabyadu waa 5,

2.   b. $\dfrac{1}{9}, \dfrac{2}{9}, \dfrac{3}{9}, \dfrac{4}{9}, \dfrac{5}{9}, \dfrac{6}{9}$.

   t. $\dfrac{3}{9} < \dfrac{4}{9}, \dfrac{4}{9} < \dfrac{5}{9}, \dfrac{5}{9} < \dfrac{6}{9}, \dfrac{1}{9} < \dfrac{3}{9}, \dfrac{2}{9} < \dfrac{5}{9}$,   way siisocon

Taabaha qiimaynta

qaabka bixinta waxbarashada, si aad u ogaatid qaabka ay ardaydu uqaabilayaan waxbarashada waa in aad su'aalo waydiiso islamarkaana jawaabaha ay ku siinayaan in aad cabirto ayaa loobaahan yahay, talaabada kalena waxay tahay ardayda koox-koox adiga oo uqeybinaya koox kamid ah waa

in ay soo sheegaan jajabyo iskumid ah kuwa kalena ">" amaa "<" iyaga oo adeegsanaya waa in ay jajabyada isbarbardhigaan, tan oo la sameeyo ardayda jajabyo is kumid ah in ay kala soocaan is lamarkaana ay isbarbardhigaan inay awoodaan in lagu ogaado waa lakaraa,

Jawaabaha layliska 2

1. $\frac{1}{5}, \frac{1}{9}, \frac{1}{12}, \frac{1}{20}$, I,W,M

2. $\frac{3}{8}, \frac{1}{8}, \frac{7}{8}, \frac{5}{8}$, , I,W,M

3.   b) $\frac{1}{2} \boxed{=} \frac{1}{2}$ t) $\frac{1}{2} \boxed{<} \frac{1}{2}$ j) $\frac{4}{7} \boxed{>} \frac{3}{7}$

       x) $\frac{11}{29} \boxed{<} \frac{19}{29}$ kh) $\frac{29}{31} \boxed{>} \frac{28}{31}$ d) $\frac{71}{81} \boxed{>} \frac{69}{81}$

4.   b) $\frac{3}{30}, \frac{13}{30}, \frac{29}{30}$ t) $\frac{25}{100}, \frac{50}{100}, \frac{75}{100}$

5.   b) $\frac{13}{24}, \frac{10}{24}, \frac{7}{24}$ t) $\frac{39}{40}, \frac{32}{40}, \frac{18}{40}$

6.   b) $\frac{1}{50}$ t) $\frac{15}{50}$ j) $\frac{25}{50}$ x) $\frac{5}{50}$

3.3   ISUGEYNTA IYO KALAGOYNA JAJABYADA HOOSEEYAHOODU ISKU MIDKA YAHAY

Ujeedooyinka

- *Isugeeyaa jajabyada leh hooseeye iskumid ah*
- *Kalagooyaan jajabyada le hooseeye is ku mid ah*

Hordhac

Isugeynta iyo kalagoynta ee tirooyinka idil sidii aan horey u soo aragnay oo kale isugeynta iyo kala goynta jabjabyadana habkaas oo kale in lagu hogaamiyo ayaa. Lasamayn, cutub-hoosaadkan jajabyada oo la isugeynayo ama lakala goynayo laakiin waa jajabyada isu'eg oo kaliya.

Hawlaha baris-barasho

Cutub-hoosaadkan hawlgalka 3.3 ee buugga ardayga lagugu siiyey waa lagu bilaabi karaa, jajabyada isu'eg in la isugeeyo sawiradooda (shaxanadood) oo kaliya in ay kufilantahay in lafahmo oo ay ka shaqeeyaan kadib tusaalaha 5aad in aad ufaahfaahiso waa muhiim

Kala goynta jajabyada isu'egna, ardaydu hawlgalka 3.4 marka ay kashaqeeyaan kadib tusaalaha 6aad inaad ufaahfaahiso ayaa lagaaga baahan yahay.

Ugu dabayn layliska 3.36 iyo layliska 3.3t waa in loo siiyo shaqo-guri, waa in loo saxo islamarkaana laga shaki tiro, fikradaha ayna ardaydu fahmin si ay idiin waydiiyaan waa in fursad lasiiyaa si loo hubiyo meelaha ay fahmiwaayeen islamarkaana fursad lasiiyaa si loo kobaciyo aqontaada fikireed faa`iido ayey u tahay,

Jawaabaha hawlgalka 3.3

b) $\dfrac{3}{10}$ t) $\dfrac{5}{10}$ j) $\dfrac{8}{10}$ x) $\dfrac{8}{10}$

b) $\dfrac{4}{4}$ t) $\dfrac{1}{4}$ j) $\dfrac{3}{4}$

Taabaha qiimaynta

isugeynta iyo kala goynta jajabyada su'aalaha ay ku jiraan xisaabfaladan waa in aad usoo bandhigtaa, adiga oo ku muujiyay jaarti, waa in aad su'aalo waydiisaa sida ay u kala horeeyaan iyaguna ay ka jawaabaan, in intee le'eg ardaydu ayay fahmeen si aad u ogaato inta ay awoodaan iyada oo lagu qorayo sabuurada dusheeda hawlgal lamid ah in lesameeyo waa lakaraa, shaqada ay ardaydu kashaqeynayaan in aad ku dul wareegitid waxa ay noqo taalaabo kale.

Jawaabaha laylisks 3.3

1.   b) $\dfrac{2}{2}$ ama 1   t) $\dfrac{7}{8}$ j) $\dfrac{19}{20}$ x) $\dfrac{25}{32}$

   kh) $\dfrac{41}{50}$ d) $\dfrac{83}{100}$

2.   b) $\dfrac{5}{7}$ t) cuntada

3.   b) $\dfrac{5}{10}$ t) $\dfrac{6}{10}$ j) $\dfrac{5}{10}$ x) $\dfrac{7}{10}$

Jawaabaha layliska 4

1.   b) $\dfrac{2}{6}$ t) $\dfrac{2}{10}$ j) $\dfrac{6}{12}$ x) $\dfrac{11}{17}$

   kh) $\dfrac{2}{20}$ d) $\dfrac{10}{24}$ r) $\dfrac{16}{30}$ s) $\dfrac{5}{100}$

2.   b $\dfrac{3}{5}$ 3.   b $\dfrac{5}{8}$ 4.   b $\dfrac{5}{8}$

3.4   JAJABYADA ISUDHIGMA

Waqtiga loo qoondeedyay waa (5 xiso)

Ujeedooyinka

- ku tusaan shaxan sawireed jajabyada isu dhigma
- jajabka lasiiyay u raadiyaan jajabyada u dhigma

Ereyada muhiimka ah:-jajabyada isu dhigma

Hordhac

cutub-hoosaadkan ardaydu jajabyada isudhigma habka loo kala sooco in ay ogtaan ayaa la samaynayaa, jajabyada isudhigma kuwa ay yihiin marka ay fahmaan kadib, waxaad ku hogoomin sida loo helo jajabyo badan oo udhigma jajabka lagu siiyay in la awoodo ayey baranayaan

Hawalha baris barasho

Ardaydu ku bilaabi hawlgalka 3.5. in ay kashaqeeyaan waa in aad iyaga oo farto, hawlgalka lasiiyey, waxyaabaha ku saabsan labatiro idil oo kasta hal loo qaybiyay laba meelood oo isle'eg! Ka kalena afar qeybood oo isle'eg loo qeybiyo, su'aalaha, su'aalaha kusaabsan, ardayda waa in aad ku dhiiri galisid in ay kajawaabaan aad ayey faa`iido u leedahay ardaydu su'aalaha marka ay ka jawaaban kadib sida. Horey aan ku soo sheegney oo kale in nakhtiin ku saabsan jajabyada ay bixiyaan adega oo kagacan siinaya ardayda

Hawlgalka kadib tusaalayaasha 7 iyo 8 ardayda u faahfaahi, oo ah hal shay oo buuxa $\frac{1}{3}, \frac{2}{6}, \frac{3}{9}$ in ay u taagan yihiin cadad isku mid ah, hal shay oo buuxa $\frac{1}{4}, \frac{2}{8}, \frac{4}{16}$ in ay u taagan yihiin cadad iskumid ah. Tusaalayaasha markaad sidii loo baahnaa aad ugu faahfaahiso si loo sii adkeeyo fikradaha ay kaheleen hawlgalka 3.6 ee buugga ardyga lagu siiyey, iyaga oo ugu shaqeynaya koox-koox ka kooban, afar ama shan xubnood waa in aad siisaa. Hawlgalkan iyada oo latixraalayo tusaalaha 9 ardayda waa in aad si haboon ugu faahfaahisaa, marka aad u faahfaahsid kadib waa in aad u nakhtiintaa (koobtaa), ugu dambaystiina layliska 3.4. shaqo-guri ahaan usii, marka ay kasoo shaqeeyaan ee ay keenaan kadib in aad u saxdo dhibaatada ardaydaana aad xaliso aad ayaa lagu baahanyahay

Jawaabaha hawlgalka 3.5

b) $\frac{1}{2}$ t) $\frac{2}{4}$ j) inta ay cuneen waa in isle'eg.

Jawaabaha Hawlgalka 4

1. Hal la hoosdhigay laba

2. $\frac{2}{4}, \frac{3}{6}, \frac{4}{8}, \frac{5}{10}$ 3. $\frac{2}{4}, \frac{3}{6}, \frac{4}{8}, \frac{5}{10}$, iwm

Tabaha qiimaynta

Hal jajab oo lagu qoro samuurada, jajabyo lagu qorayo samuurada waa in ay sheegaan kolba mid jajabyada ay isudhigmaan, labada isudhigma iyo kuwa aan isudhigmin in ay kala soocayaan si aad u ogaatid, waa in ay ka jawaabaan su'aalo run ama been laguga jawaadbayo waa in aad su`aalo badan aad ku qortaa sabuurada dusheeda,

Tusaale:- $\frac{1}{2}$ iyo $\frac{15}{30}$ waa jajabyo isudhigma

$\frac{3}{4}$ iyo $\frac{21}{27}$ ma'aha jajabyo isudhigma

Ardaydu waa in ay kaga jawaabaan run ama been kadibna ay sababta ay sheegaan ayaa loo baahan yahay in lasameeyo

Jawaabaha layliska 5

1.　b)　$\frac{2}{20}, \frac{3}{30}, \frac{4}{40}, \frac{5}{50}, \frac{6}{60}$　t)　$\frac{10}{24}, \frac{15}{36}, \frac{20}{48}, \frac{25}{60}, \frac{30}{72}$　j)　$\frac{100}{200}, \frac{200}{400}, \frac{300}{600}, \frac{400}{800}, \frac{500}{1000}$

2.　b.
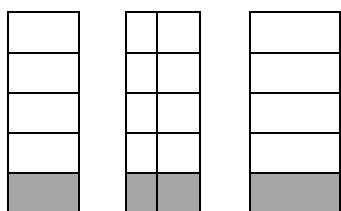
3.

$\frac{1}{2}$	$\frac{2}{4}$	$\frac{3}{6}$	$\frac{4}{8}$	$\frac{5}{10}$	$\frac{6}{12}$	$\frac{7}{14}$
$\frac{1}{3}$	$\frac{2}{6}$	$\frac{3}{9}$	$\frac{4}{12}$	$\frac{5}{15}$	$\frac{6}{18}$	$\frac{7}{21}$
$\frac{2}{3}$	$\frac{4}{6}$	$\frac{6}{9}$	$\frac{8}{12}$	$\frac{10}{15}$	$\frac{12}{18}$	$\frac{14}{21}$
$\frac{6}{7}$	$\frac{12}{14}$	$\frac{18}{21}$	$\frac{24}{28}$	$\frac{30}{35}$	$\frac{36}{42}$	$\frac{42}{49}$
$\frac{3}{10}$	$\frac{6}{20}$	$\frac{9}{30}$	$\frac{12}{40}$	$\frac{15}{50}$	$\frac{18}{60}$	$\frac{21}{70}$
$\frac{12}{23}$	$\frac{24}{46}$	$\frac{36}{69}$	$\frac{48}{92}$	$\frac{60}{115}$	$\frac{72}{138}$	$\frac{84}{161}$

3.5 TOBAN-DALOOLADA, BOQOL-DALOOLADA IYO JAJABTOBANLEYAASHA

wokhtiga loo qoondeeyey (4 xiso)

Hardhac Ujeedooyinka

cutub hoosaad kani morka uu dhamaado ardaydu waxay awoodayaan in ay

- ku muujiyaan jajabtobanleyaasha xariiqda tirada dusheeda
- jajabtobanlayaasha u goraan tobanlay
- 1/100 u badalayaan tobanleyo

Eryada muhiimkaah :- Tobnaaddo, boqlaaddo, jajabtobanleyaal jajabtobanleyaa leh labada god dhibicda tobnleyade.

Cutub-hoosaadkan ardaydu tobnaadda, boqlaaddo iyo tobanleyo ay yihiin si ay ubartaan ayaa la samaynayaa sida, xariiqda firada 10 x 10 laba jibaarane tirooyinka ayuu faahfaahinayaa, boqlaad iyo tobanlayda in ay ubadalaan jajabtobanleyaal saas oo ay tahay jajabtobanle ayaa loo badalo boqlaad iyo tobnaaddo ayey baranayaan

Howlaha baris-barasho

b) Tobnaaddo iyo jajabtobanleyaal

cutub-hoosaadkan adiga oo kubilaabaya hawlgalka 3.7 xariiqda tirada baraha (dhibcaha) dushiisa kuyada waa in aad ardayda tustaa in ay u taagan yihiin jajabyo, waan talaabo muhiim ah sidaas awgeed hawlgalkan eber iyo hal baraha u dhexeeya iyada oo loo qaadanayo hal walax oo buuxa waa in loo qeybiyo toban qeybood oo isle'eg iyada oo la'adeegsanayo mastrad, ardaydu waa in ay baraha u gartaan in ay u taagan yihiin jajabyo marka loo faahfaahiyo kadib hawlgalka 3.7 koox-koox ama shaqsi ahaan in ay uga shaqeeyaan waa in aad fartaa ardayda.

Hawlgalka ardaydu marka aad u falanqeysaan kadib waa in 10 jajabyo kala duwan ah loo faahfaahiyo ardayda oo lafahamsiiyo, tusaalayaasha, kadibna si ay ardaydu ugu xasilaan jajabtobanlayaasha iyo jabayada caadiga ah, xidhiidhka ka dhexeeya iyo adeegsigooda waa in ay faahfaahiyaan, ugu danbayna aqoonta ay ardaydu heleen layliska 3.5 shaqo guri ahaan usii, marka ay ka soo shaqeyaan ee ay ka soo shaqeeyaan ee ay keenaan kadib u sax una faahfaahi saas oo ay tahay su'aalaha ay kuwaydiiyaan ardaydu waxaa loo baahan yahay in aad siiso warbixin ku haboon.

Jawaabaha hawlgalka 6

1. $\dfrac{2}{10}, \dfrac{4}{10}, \dfrac{5}{10}, \dfrac{7}{10}, \dfrac{9}{10}$

2. 10

3. haa waa jajabyo isku eg

4. $\dfrac{2}{10}, \dfrac{3}{10}, \dfrac{5}{10}, \dfrac{9}{10}, \dfrac{10}{10}$

Tabaha qiimaynta

Ardyda waa in aad waydiisaa su'aalo afka ah oo ku saabsan tabanleyda iyo jajabtobanleyaa in ay na jiriin waxay ku kala duwan yihiin ee ay qaabka loo qoro uun in ay ku kala duwan yihiin si ay u fahmaan waa in aad samaysaa, ardyda waa in tusaale kusaabsan qaabka bandhiga (looqoro) sida ay u fahmeen waa in aad waydiisaa oo aad dhiiri galisaana aad ayey faa'iido uleedahay. Hal ka mid ah qaabka loo qoro marka loo badalaya qaab kale samuurada dusheeda inta aad ugu qorto kolba mid in aad kadoodaan waa in aad samaysaa. Tobnaaddiyo, tobanleyaasha marka hore kaar bilig leh dushiisa waa in lagu diyaariyaa arddyduna si bakhtiyaa nasiib ah kolba mid iyada oo lawaydiinayo inay isku adin karaan si loo hubsado way haboon tahay

Jawaabaha layliska 6

	Jajabyo tiraab ahaan ah	Jajab tobanleyaal	Tobanleyaal
b	Laba la hoos dhigay toban	$\dfrac{2}{10}$	0.2
t	Shan la hoos dhigay toban	$\dfrac{3}{10}$	0.5
j	Saddex la hoos higay toban	$\dfrac{5}{10}$	0.3
x	Sagaal la hoos dhigay toban	$\dfrac{7}{10}$	0.9
dh	Todoba la hoos dhigay toban	$\dfrac{9}{10}$	0.7
d	Toban lahoos dhigay toban	$\dfrac{10}{10}$	1.0

2.   b) $\dfrac{5}{10}$ ama 0.5   t) $\dfrac{7}{10}$ ama 0.7

   j) $\dfrac{8}{10}$ ama 0.8   x) $\dfrac{9}{10}$ ama 0.9

3.   b) 0.6   t) 0.7   j) 0.8   x) 0.9

4.   b) $\dfrac{1}{10}$ t) $\dfrac{2}{10}$ j) $\dfrac{3}{10}$ x) $\dfrac{4}{10}$

t) Boqlaaddada iyo jajab tobanlayaasha

Hawlaha barisbarasho

Ardayda hawlgalka 3.8 ee lasiiyey koox-koox amaa shaqsi ahaan, waxaa fiiro gaar ah lasiiyey 10 x 10 meelood ah in laqa shaqeeyo waa in lasameeyo, si ay uga jawaabaan in aad siiso dhiirigalin waa talaabo loo baahan yahay. Hawlgalka markaay ardaydu kashaqeeyaan kadib in aad u soo gabagabayso (koobto) aad ayay u haboon tahay, hawlgalkan kadib tusaalayaasha 11 iyo 12 adiga oo u faahfaahinaya kuna soo koobaya in aad siiso way ku haboon tahay. Marka aad soo koobto kadib ardaydu sidee boqlaadyada iyo jajab tobanleyaasha midba midka kale lagu badalo ay u awoodi karaan, tusaaleyaasha 13 iyo 14 waa in aad u faahfaahisaa.

Jawaabaja jawlgalka 7

b) 13   t) 11   j) 24   x) 76

Jawaabaha lyliska 7

3.   t.   5 tobanleyaal + boqole = $\dfrac{50}{100}$

   j.   6 tobanleyaal + 9 boqole = $\dfrac{69}{100}$

   x.   3 kobaad + 8 tobanleyaal + 2 boqole = $\dfrac{382}{100}$

   kh,   1 tobnad + 2 koowaad + 9 tobanleyaal + 76 boqole = $\dfrac{1297}{100}$

4,   b)   0.06   t) 0.38

   j)   0.79   x) 1.92

5.   b)   8/100   t) $\dfrac{36}{100}$

   j) $\dfrac{68}{100}$ x)   142/100

6.   b)   tobonlayda   t)   boqolayda

   j)   kow   x)   toban

7.   b)   boqoley   t)   tobanlayda

   j)   kow   x)   toban

8.

Boqolley	$\dfrac{17}{100}$	$\dfrac{76}{100}$	$\dfrac{81}{100}$	$\dfrac{5}{100}$	$\dfrac{7}{100}$
Jajab tobanle	0.17	0.76	0.81	0.05	0.07

9. b)   0.95 birr   t)   3.50 bir

   j)   0.78 mitir   x)   1.15 mitir

3.6 ISBARBARDHIGIDDA IYO HORSANAANTA JAJAB-TABANLEYAASHA

Ujeedooyinka

cutub-hoosaadkani marka uu dhamaado ardaydu waxay awoodi doonaan in ay

- is barbardhigaan tobanleyo ilaa labagodah
- uqoraan hoorsanaantood (kalahorayntood.) tobanleyada ilaa laba god ah

Hordhac

Jajabyada marka aan isbarbardhigayno iyo iyaga oo looqorayo hoor sanaan tooda siday ahaayeen dhamaan lmikana, jajabanleyaasha leh ilaa labagod isbarbardhigooda iyo hoorsanaantooda oo loo la jeedo iyada oo laga bilaabaya kayar ama laga bilaabayo kawayn in loo qoro hoorsanaantooda in ay bartaan weeyaan

Hawlaha baris-barasho

cutub-hoosaadkan si aad ubarto, hadda kahor baris barahadan 1,1.2 cinwaanka oo aad usoo bandhigtaa qaabka loo adeegsanayo isbarbardhig tirooyinka idil, jajabtanaleyaasha adeegsigood aad ayaaloogu baahan yahay, ardayda in waxarashada lagu dhiirigalyo waa lakaraa, hawlgalka 3.9. koox-koox iyaga oo uga doodaya islamarkaana kajawaaban in aad ku dhiirigaliso faaiido ayey leeedahay.

Hawlgalka marka aad ka galansiisid kadib tusaalaha 15 ufaahfaahi waxay kacaanynaysaa sida la isku barbardigo laba jajabtobanle in ay ogaadaan oo ay awoodaan ayay ka caawinaysaa. Tusaalaha 16 sida loogu muujiyo xariiqdatirada isbarbardhiga laba jajab tobanle in ay awoodaan ardayda markaad tusto kadib tusaalaha 17na sida la isu barbardhigo labatiro iyo in kabadan iyada oo loo eegayo hoorsanaantooda (sida, ay u kala horeeyaan) in loo qoro si ay u awoodaan waa in aad ufaahfaahisaa,

Tasadaha 16, 0,38 xariiqda tirada loogu muujiyo, 0.3 iyo 0.4 inta udhexaysa waa in aan uqeybinaa 10 meelood oo ileeg sideeda inaga oo sooqaadanaya ee tirada 0.38 waynu arki karnaa, 0.76 si ay nu u eegno iyadana 0.7 iyo 0.8 inta udhexaysa waa in aan uqeybinaa 100 meelood oo isle'eg, lixda in laqaadanayo ardayda in aad ku dhiirigalisid ayaa loo baahan yahay, qaabkan tusaalaha 17 in loo adeegsado aad ayay u haboon tahay, guud ahaan 0.1 iyo 0.2 inta udhaxaysa marka looqeybiyo 10 meelood oo isle'eg waxay noqon trooyinka soo socda 0.11, 0.12, 0.13, 0.14, 0.15, 0.16, 0.17, 0.18, 0.19, 10 in ay tahay si ay ardaydu u fahmaan ayaa larakaa,

Gabagabada layaliska 3.6. su'aalaha 1-6 kuwa kusaabsan (1(b), 2(b), 3(b), 4(b), 5(b), 6(b)) su'aalahaas fasalka dhaxdiisa inta ay kaga shaqeeyaan waa in ay kutusaan is lamarkaana fasalka dhaxdiisa waa in aad u ogololaataa inay doodaan, su'aalaha ka soo hadhay layliska 3.6 ardayda waa in aad usiisaa shaqo guri ahaan marku ay ka soo shaqeeyaan sax faalana kabixi haddii ay jiraan fikrado ardaydu ayna fahmin su'aalaha ardaydu si ay kuu waydiiyaan in aad fursad siiso ayaa loo baahan yahay.

Jawaabaha hawlgalka 3.9

qofka qiimaha qaaliga ah ku iibsaday waa siraad

Tabaha qiimaynta

Habka barisbarasho su'aalaha ay ardaydu soo jeediyaan iyo jawaabaha ay kabixiyaan, jawaabeeska laga helayo iyo tillmaamaha xogururinta iyada oo lagu saleynayo waa in si loo sameeyo la awoodaa, shaqada noocan ah iyada oo logu ilaalinayo ujeedooyinka waxbarashada si xaqiiqo ah in ay u hirgashay sidii loo hubin lahaa,

Kalkaa soo socota muhiimada waxaa lasiiyey jajabtobanleyaana inta aad ku muujisid kaarbiligleh ah islamarkaana inta aad diyaarisid bakhtyaa nasiib ah usoo kicinaya ardayda adiga oo dhiirighinaya in ay ku qoraan samuurada sida ay u kala horeeyaan ama hoorsanaantooda aad ayay faaiido u leedahay in la adeegsado

Jawabaha layliska 3.6

1.　b)　2.2, 2.3, 2,32　　　kh)　12, 12.01, 12.06

　　t)　0.06, 0.09, 0.1　　　d)　20.19, 20.12, 20.21 20.23

　　j)　0.05, 0.5, 0, 5,　　　r)　0.08, 0.80, 0.88, 0.9

　　x)　5, 00, 5.01, 5, 10　　　s)　36.09, 36.32, 36.39, 36.4, 37.23

2.　Qiimaha halmariindha ayaa kabadan

3.　Canab ayaa kadheer

4.　Suuqa jimlahada qiimahiisa ayaa kabadan

5.　Manoqonayso, sababtuna

6.　Dhererka maxamed aya kabadan

7.　b) maalinta ugu heerkul badan ee la diiwaan galiyay waa maalinta jimcah.

　　t) maalinta ugu heer kul yar ee ladiiwaan galiyay waa khamista

3.7 ISUGENTA IYO KALA GOYNTA JAJAB-TOBANLEYAASHA

wakhtigalooqoondeeyey waa (4xiso)

Ujeedooyinka

Markaundhamaada ardaydu waxay awoodi doonaan in ay

- isugeeyaan jajabtobanleyaasha leh ilaa laba god.
- Kala gooyaan jajabtobanleeyaasha leh ilaa laba god.

Hordhac

Hadda kahor ardaydu waxay soo barteen isugeynta iyo kala goynta tirooyinka leh godad badan, Cutub hoosaadkana waxay ku baranayaan jajabtobanlayaasha leh ilaa laba god, hawlgalo, tusaalayaal iyo laylisyo ahaan iyada oo la adeegsanayo ayaa la samayna yaa.

Hawlaha barisbarasho

b) isugeyn

cutub hoosaadkan si loo bilaabo tirooyinka idil side ayaa la isugu geeyaa in lagu furo way fiican tahay. Buugga ardayga hawlgalka 3.10 lagusiiyey ardaydu koox-koox ama shakhsi ahaan fasalka dhaxdiisa in ay uga shaqeeyan islamarkaana waa in aad jawaabahooda aad usaxdaa, hawlgalkan kadib tusaalaa 18 waa in aad ku dadaashaa. In aad ardayda afar qaab oo kala duwan aad ugu faahfaahisid, tusaalaha 19 labada qaab ee looga shaqeeyey ardayda u faahfaahi, ugu danbayna layliska 3.76 waa in aad ardayda aad usiisaa shaqo guri marka ay kasoo shaqeeyaan ee ay keenaan waa in aad jawaab celis siisaa jaartiyo ka kooban isugeyna waa in aad u adeegsataa kaabayala ahaan si ay ardaydu ay u xiiseeyaan waxbarashada way kaa caawinayaan tusaalaha 18 ardayda marka aad u faahfaahmaysid, qaabka koowaad ee jajab-tobanleyaash, jajabyada ee jaantuska korkiisa in ku ar kaan isugeynta jajabyada iyada oo sidaas oo kale loo soo qaadanayo jajabtobaanleyaashana ayaa lagu muujinayaa.

Qaabka 2na jajab tobanleyaasha lagu muujiyo xariiqda tirada waa la heli karaa isugeyntooda

Qaabka 4 iyada oo laisugeynayo jajabtobanleyaasha godadkooda sida ay isu leeyihiin

Marwalba in la adeegsado habka la isuu geeyo in ay tahay ardayda in aad u cadaysaan ayaa loo baahan yahay

T) kalagoynta

Cutub-hoosaaadkana si aan ubilawno, tirooyinka idil wax yaabihii ay ku soo barteen ee kusaabsanaa kalagoynta oo loo soo bandhigo islamarkaana kawlgalka 3.11. koox-koox ama shaqsi ahaan ay ardaydu ka shaqeeyaan islamarkaa jawaabahana aysheegaan way habon tahay in aad samayso, hawlgalka marka ay ka shaqeeyaan kadib

tusaalaha 20 ee lagugsiiyey kalagonta su'aalaha kusaabsan qaababka looga shaqeeyey ardada waa in aad sicad ugu bayaamisaa tusaalaha 20 (j) su'aasha lagugu siiyey si looga shaqeeyo iyada oo ladeegsanayo qaabka 1 sida la ina siyey 10×10 melood _____ tirooyinka in lagu muujiyo Faraqa si ay nu u helno, waxaa lagaaga baahan yahay in aad ufaahfaahiso,

Qaabka 2 na faahifaahinta lagusiiyey ee godadka tirooyinka qiimahooda in looga shaqeeyo samee islamarkaana hal tiro oo buuxda in laga gooyo in ay noqonayso islamarkaana hab aanan horay loo soo adeegsan in uu yahay cadee,

Rinjiyo kaladuwan adiga oo adeegsanaya jaarti aad horey usoo diyaarisay tusaalayaasha lagu siiyey oo kale suaalahooda in ta aad kasoo shaqeysto waa in aad ardayda aad tustaa waxay kuu hirgalin in ay ardayda fikradoodu ay koradho

ugudambayna layliska 3.71 ardayda shaqo guri ahaan usii, marka ay kasoo shaqeeyaan ee ay keenaan kadib usax, meelaha hagaajiin ubaahan fiiri

ardaydu marka ay ku way diiyaan jawaabaha waa in aadan dib u dhigan in aad uga jawaabto ee waa in ay ficil kaa noqoto

Jawaabaha hawlgalka 3.10

1.   Labada qalab qiimahoodu wadar ahaan waa 3.40
2.   Dhamaan kharashka ka baxay ardayga waa 18.85

Tabaha qiimaynta

Habka baris-barasho dhexdiisa su`aalaha aad waydiinayso waa in ay noqdaan su`aalo afka ah si aad u ilaalisid xaalada fasalka marka uu cutub-hoosaadku dhamaado in imtixaan tijaabo ah lasiiyo islamarkaa waa in la qiimeeyo ardayda.Marka imtixaanka aad ka qaadid ee aad soo saxdo kadib.su`aalaha uu ka koonaa imtixaanku waa in aad fasalka dhexdiisa in aad uga shaqayso ardayda ayaa loo baahan yahay.

Jawaabaha layliska 3,7

1.   b)   0.6   t)   0.64   j)   2.13   x)   0.9

     kh)   1.5   d)   2.9   r)   6.5   s)   0.58

     sh)   4.02   dh) 8.46   c)   973.50

2.

     b)   1.5   t)   1.7   s)   2.18   x)   1.9   kh) 2.8   d)   13.42

     r)   15.77   s)   28.58

3.   Culayska bariiska oo dhani waa 30.7 kg.
4.   Qofkaasi koodhkiisa iyo surwaalkiisa si uu u tosho wuxuu u baahan yahay 2.90 mitir oo waro ah.
5.   Culayska sibidhku wuxuu noqonayaa 16.89 Kg.
6.   Si uu ardaygu u iibsado buugga wuxuu u baahan yahay 4.80 Birr oo dheeraada.

CUTTUBKA 4^{aad} CABBIRAADDA

HORDHAC

Cutubkan ardaydu waxay ku baran doonaan cabbraadda halbeega dhererka, halbeega culayska iyo halbeega mugga, fasalkii saddexaad ardaydu maadada xisabta waxay ku soo barteen cabbirada halbeegyada marlabaadna si faahfaahsan in ay u bartaan ayaa loobaahan yahay, cabbiraada halbeegyada oo loo baddalayo Halbeegyada kale, cabbiraadda halbeegyada sidii aan horey ku soo sheegnay sidii iyada oo laraacayo in loo dhigo sida ay u kala horeeyaan halbeegyadu

Islamarkaana isugeynta iyo kalagoynta halbeegyada tusaalayaal ku saabsan oo aad u faah-faahsan ayaa lagu muujiyey.

Fasalkii 3aad ardaydu si ay usoo xasuustaan cashiradii ay ku barteen ee maadada xisaabta waa in aad kagacan siisaa hawlgalada fasalka iyaga oo uga shaqeynaya koox-koox ama shaqsi ahaan waa in aad ka gacan siisaa

Cutub-hoosaadyadan halbeega dhererka, halbeega culayska iyo halbeega mugga cabbiradooda ayay ka kooban yihiin

Ujeedooynika

Cutubkan marka uu dhamaado ardaydu waxay awoodi doonaan in ay:-

Kaabayaasha Barista

- Qaybta (xubnaha) Jidhka ee loo adeegsado cabbiraada dhererka (xusul, talaabo, taako)
- Mastarad, mitir, mitirka duuban
- Qalabyo kala duwa
- Qalabyo kaladuwan oo lagu cabbiro dareereyasha (malqaacad, bakeeri, quruurad, baaldi)
- Warqado jaartiyo ah iyo Qalimaan kala muunad duwan
- Kaar bilig leh

4.1 CABBIRAADA DHERERKA

Ujeedooymika:

Cutub-hoosaadkan marka uu dhamaado ardaydu waxay awoodi doonaan in ay:-

- *U badalaan halbeegyada dhererka ee waawayn halbeeg. Yar*
- *U badalaan halbeegyada dhererka ee yaryarhableeg wayn*
- *Isugeeyaan halbegyada dhererka*
- *Kala gooyaan halbeegyada dhererka*
- *Isbarbardhigaan halbeegyada dhererka*
- *Furfuraan weedh-xisaabeedyada ay ku jiraan halbeegyada dhererka.*

Ereyada muhiimka ah

Milimitir, sintimitir, mitir, kalogiraam

Hordhac

Dadkii hore cabbiraada dhererka waxa ay u adeegsan Jireen ee ay ardaydu horay ugu soo barteen fasalka 3aad iyada oo lagu dhafayo waxbarashada xisaabta waa In lagu soo bandhigo cutub hoosaadka hawlgalada fasalka, tusaalayaal iyo laylisyo ayuu leeyahay.

Hawlgalda baris-barasho

Cutub-hoosaadka marka ladhigayo wuxuu kubilaabmi, hawlgalka 4.1. waa in ay ardaydu ka shaqeeyaan, Ardaydu marka ay kashaqeyaan hawlgalka, ee xusul, ___ taako, waa in aad ka galan siisaa ardayda cabbirka dhererka.

Hawlgalka 4.1. markaay kashaqeeyaan waxaa hubal ah inay jawaabda ardaydu ay kala duwanaadaan waxa sababay si aad u ogarato marka ay kadoodaan kadib, kaladuwanaan shadan in aad u xaliso, halbeegyada guud ee koon ahaan la'adeegsado in ay jiraan islamarkaan halbeegyadaas in aad adeegsato aad ayey ufiican yihiin ardaydana way dhiirigalin.

Hawlgalka 4.1 kadib Ardaydu waa in ay soo xasuustaan Cabbiraadda dhererka ee ay horey ugu soo barteen maadada xisaabta oo ka

hawlgalka 4.2. waxaa loo baahan yahay in ardayda lagu dhiirigaliyo si ay uga shaqeeyaan koox-koox ama shaqshi ahaan shaqo kooxeedka 1 iyo hawlgalka 4.3. ardayda marka lagu dhirigaliyo in ay uga shaqeeyaan koox-koox ahaan kadib xidhiidhka halbeegyada si ay u gartaan waa in aad u soo koobtaa si haboon.

1. Ee suaalaha lasiiyey adiga uga shaqeynay su'adaha ugashaqeya in aad fursad siisa ardayda ayaa haboon.

Tusaalaha 1 ee lagugusiiyey halbeey wayn oo loo badalo halbeeg yar waa in ay ardaydu garansadaan, halbeeg you oo loo hadalyo halbeeg wayn waa in ay ardada awoodi karaan mar labaad Tusallaha 2 waain aad ufaahfaahisaa, Tusalayaasha 1 iyo

2.   Waa in ay eegaan

- Dhererka halbeegyada waa wayn oo loo badalo halbeeg yar isbadalka tirooyinka loo adeegsado waa (10,100 ama 1000) oo lagu dhuftay waa inaad u faah-faahiso, ardadu kudhufashada maadaama ay garanayaan si fudud ayey u badali karaan

- Dhererka halbeega yar oo loo badalo halbeeg wayn islamarkaana tirooyinka la'adeegsado marka labadalayo oo qeybiyo tirooyinkaas ayaa loo baahan yahayna laakiin ardaydu waxay garanayaan In 10 loo qeybiyo oo kaliya, 100, 1000 loo qeybiyey maadaama ayna garanaynin, waxaa loo baahan yahay in la adeegsado habkale, tusaale ahaan 2000 mitir oo loo badalo k.m
$$2000m = 2 \times 1000m = 2 \times 1\ km = 2km$$

tusaalayaasha 1 iyo 2 ardaydu marka ay waxa ay fahmi waayeen sheegaan kadib, halbeegyo kala duwan adiga oo siinaya waa in ay a woodi karaan is barbardhiga cabbiradooda Tusaalaha 3aad waa in aad ufaahfaahisaa, taabaha faahfaahinta marka aad ku gudo Jirto su'aalo afka ah adiga oo waydiinaya waxay kaa caawinaysaa in aad ogaato dabagalka iyo fikirkooda

gabogabadana layliska 4.1. ee buuga ardayga lagugu siiyey, su`aalaha ---- koobantahay (1-, 2-, 3-, 4-, 5-, 6-, 7-) saddex kamid ah adiga oo qaadanaya waa in aad uga shaqeysaa, koox-koox haan afarta soo hadhayna shaqsi ahaan fasalka dhexdiisa ardaydu in ay kaga shaqeyaan waa in aad samaysaa, talaabada ku haboon iyo gabagabo inaad siiso ayaa loo baahan yahay.

Su'aalaha ka soo hadhay layliska 4.1. ardaydu waa in ay kaga soo shaqeeyaan gurigooda ee ay keenaan kadib waa in aad saxdaa islamarkaana jawaabaha aad usheegtaa ardayda.

Ardayda isugaynta cabbiraadda halbeegyaada dhererka si ay u gartaan hawlgalka 4.5 marka ay ka shaqeyaan kadib tusaalaha 4 waa in aad u faah-faahisaa, marka aad ufaah-faahinaysid ardayda, in aad sifiican waa in aad u hubsataa

Tusaale

212m 50cm	
98 m 75cm	• Joog utax tirooyinka isugeysaa sida ay ukal horeeyaan
1190 m125 cm	• Beegyada is ku midka ah isugee
1190m +1m. 25 cm	• 125 cm marka loo badalo
1191 m25cm	• 1m iyo 1190 m waa la isugeyn

Hab kale oo la isugugeeyo halbeegyada si ay u garawsadaan waa in aad siisaa tusaale dheeraad ah. Birooyinka ama labada la isugeynayo marka aan u badalno halbeeyo iskumid ah kadib in la isugeyn karo buugga ardayga ayaa sifiican loogu faahfaahiyey

Tusaalaha 4 marka la faahfaahiyo kadib in loo soo gabagabeeyo aad ayey u haboon tahay, ardaydu kalagoynta cabbiradda halbeegyada dhererka si ay u garawsadaan hawlgalka 4.6 marka ay ka shaqeeyaan kadib tusaalaha 5 laba halbeegyada islamarkaana halbeegyada loo badalo halbeg is kumid ah way dhiirigalin, faafaahinta kadib waxaa loo baahan yahay gabogabo

Ilaa imika hawlgalada iyo tusalayaasha ardaydu waxbarashada ay u hantaan sidii looga dhigi lahaa waxaa ka caawinaya. Tusaalaha 6 su'aalaha weedh-xisaabad yada lagugu siiyey sitaxana ah ardayda uga shaqee

Cutub hoosaadkani wuxuu kubilaabmayaa layliska 4.2. faa`iidadisa koobaad waa in ardayda loo siiyo shaqo fasal ama shaqo guri. Waxbarashada marka ay dhameeyaan ardaydu ay layliska ka soo shaqeeyaan kadib waa in loo saxaa, islamarkaana sixitaan iyo Jawaab celis waa in aad siisaa.

Jawaabaha hawlgalada

Hawlgalka 4.1:

waxay karaan in ay ku siiyaan jawaab kala duwan

Hawlgalka 4.2.

 jawaabo kala duwan kolba in ay kusiiso way dhici karaan

6)   42km   7)   mm, cm, m, km

8)   b. 1km   t.   2km   j. 10km

Shaqo – kooxeed ka 1

b) 78900m   t) afar rubuc oo kilomitir ah

Hawlgalka 4.3

1.   Guriga caasha
2.   b) 4500m
      t) 4.5 km

Howlagalka 4.4

1.   75 cm amaa $\frac{3}{4}$ m

Tabaha Qiimaynta

Habka baris barrasho su'aalaha afka ah ee ay ku waydiiyan ee soo noq-noqonaya ee aad aragto ayada oo la laalinayo islamarkaana la eegayo in lagaadhay ujeedooyinka si aad u hubsato waa in aad u adeegsato kuwa soo socda. Ayaa loo baahan yahay

Rinjiyo kala muunad duwan oo horey loo diyaariyey

- Jaarti ka kooban isku badalka halbeegyada waa in ardayda aad u soo bandhigtaa
- Isugeynta iyo kalagoynta halbeegyada Jaarti ka kooban waa in aad ardayda loo soo bandhigo

Jawaabaha laylisyada

Layliska 4.1

1.	b) 50 mm	t) 1205 mm	J) 22405 mm
2.	b) 12700 cm	t) 794025 cm	J) 950050 cm
3.	b) 62500 m		
4.	b) 350 cm	t) 42200 cm	J) 845750 m
5.	b) 35 m	t) 5724 cm	J) 100,000 cm
6.	b) 1780 cm	t) 57.2 m	J) 1247.5 m
		t) 7ck	J) 32.5 km

7.   b) >   t) =   j) <   x) <   kh) <   d) =

Layliska 4.2

1.   b) 80cm iyo 8mm   t) 745m iyo 60 cm   J)   2151 km iyo
2.   b) 54cm iyo 4mm   t) 44m iyo 58 cm   J)   121 m iyo 13cm
3.   17m iyo 15 cm
4.   10m iyo 35 cm
5.   Dhererka layla waa 98 cm

4.2 CABBIRAADA CULAYSKA

Wakhtiga loo goondeeyey (6 xis)

Ujeedooyinka

Cutub-hoosaadkani marka uu dhamaado ardaydu waxay awoodi doonaan in ay

- *Faahfaahyaan halbeega tan.*
- *Sharxaan xidhiidhka kadhexeeya tanka iyo kiintaalka*
- *U badalaan hal halbeega culayska halbeegyada kale*
- *Isugeeyaan halbeegyada culayska*
- *Kala gooyaan halbeegyada culayska*
- *Isbarbardhigaan halbeegyada culayska*
- *Furfuraan weedh-xisaabeedyada ku saabsan halbeegyada culayska*

Ereyada muhiimka ah

Giraam, kilogiraam, kintaal, tan

Hardhac

Ardaydu fasalkii saddexaad maadada xisaabta waxay ku soo barteen sida loo cabbiro culayska, giraam, kilograam iyo kiintaal ahaanba, cutub-hoosaadkan fasalkii saddexaad halbeega culayska ay

ku soo barteen ayaa si qoto dheer loo gudo galayaa, waxaa dheer tanka oo ka mid ah halbeegyada lagu cabbiro culayska in ay ogaadaan waa in lagu dhiirigaliyo

Xidhiidka ka dhexeeya halbeegyada culayska marka ay kala soocaan kadib, waxaad ku hogaamin sida la'isugu badalo halbeegyada midba midka kale, marka iskubadalka halbeegyada kadibna ay bartaan isugeynta iyo kalagoynta halbeegyada culayska ee kala duwan waa in aad ku hogaamisaa.

Taas waxaa dheeri ah inay isbarbardhigaan cabbiraadda halbeegyada culayska, ugu dambaystiina waa in ay furfaraan weedh-xisaabeedyo ku saabsan cabbiraadda halbeegyada culayska ay awoodi karaana.

Cutub-hoosaadkan sida kuwa kale Hawlgalada, Tusaalayaal iyo laylisyo maadaama ay ku jiraan ardaydu fikir fiican in ay ka haystaan inta layidhaa waa in la hubsado.

Hababka baris-barasho

Cutub-hoosaadkan si loo bilaabo ardayda sanadkii hore waxbarashadii ay soo barteen si ay u xasuustaan, hawlgalka 4.2, 4.6 iyo 4.7 inay uga shaqeeyaan koox-koox ama shaqsi ahaan ayaa lagu farayaa, ardaydu haddii ay koox-koox uga shaqaynayaan kuna salaynaya nolol-maalmeedkooda iyaga oo wada Jir ah wadaagayana akhbaarta waa in lagu hawlgalaa, lagana gacan siiyaa

Ardaydu marka ay ka shaqeeyaan hawlgalka kadib cabbiraadda halbeegyada culayska waa in loo naqtiimo ardayda si ay u hantaan nuxurka una fahmaan.

Fasalkan cabbiraada halbeega culayska "tan" ayaa ku cusub waa in aad ardayda ku hogaamisaa in ay gorawsadaan xidhiidhka ka dhexeeya tanka iyo halbeegyadda culayska ee kale,

Cabbiraada halbeegyada culayska xidhiidhka ka dhexeeya ardaydu marka ay sifiican u fahmaan kadib waa in ay ardaydu awoodaan in ay isku badalaan halbeegyada midba midka kale, tusaale 7, 8, 9 iyo 10 aad ugu faah-faahi, kuwa kale ee lamidka ahna waa in ay fasalka dhexdiisa kaga shaqeeyaan islamarkaana aad siisid fahafaahin dheeraada

Si aad u bartid isugeynta halbeegyada culayska, hawlgalka 4.8 iyo tusaalaha 11 waa in ay ka shaqeeyaan, weedh-xisaabeedyo waa in aad siisaa koox-kooxna aygu shaqeeyaan adiga oo kormeeraya marka aad samayso kadib Tusaalayaasha 12 iyo 13 waa in aad ardayda ufaah-faahisaa

godadka tirada qiimaha halbeegyada in ta aad ufaah-faahisid waa in aad ardayda sifiican ufahansiisaa kolkaana kalagoynta si aad u tustid tusaalayaasha 14 iyo 15 waa in aad ardayda aad u faahfaahisid

Tusaalayaashan habka loo adeegsaday isugeynta dhamaan tirooyinka qiimaha godadkooda is lamarkaana halbeegyada oo la kala gooyo in ay tahay waa in ay garawsadaan, tusaalayaasha laga shaqeyey ardadu si ay ugu barbartaan layliska 4.4 iyo layliska 4.5 shaqo guri ahaan ardayda usii islamarkaana, marka ay kasoo shaqeeyaan ee ay keenaan kadib jawaab celinta lagama maarmaanka ah waa in aad siisaa

Qiimaha culayska ardaydu si ay isubarbardhigaan oo ay u awodaan hawlgalka 4.9 marka ay koox-koox laba culays is barbardhiga qiimahooda shaqada muhiimka u ah waa in aad sicad ugu soo bandhigtaa su'aalaha marka la faah-faahiyo ardaydana sifiican loogu bayaansho kadib, layliska 4.6 shaqo guri ahaan inta ay uga soo shaqeeyaan waa in loo saxo islamarkaana faahtaahina. Laga siiyo, su'aalaha ay ardaydu ku waydiiyaana waa in aad sifiican ugu sharaxdaa

Tusaalayaasha 7 iyo 8 halbeeg Wayn oo loo badalayo halbeeg yar in ay ardaydu fahmaan ayaa loo faahfaahiyey, marka halbeeg wayn loo badalayo halbeeg yar tirooyinka loo adeegsado waa (10, 100, 1000, ----) oo lagu dhufto ayaa loo baahan yahay .

Maadaamo ay ardaydu aqoon uleeyihiin iskudhufashada ku ma adkaanayso. Tusaalayasha 9 iyo 10 halbeeg yar oo loo badalayo halbeeg wayn in ay ardaydu fahmaan ayaa loo faahfaahiyey, marka balbeeg yar loo badalayo halbeeg wayn, tirooyinka loo adeegsado (10, 100, 1000 ---) oo loo qeybiyey ayaa loo baahan yahay, laakiin ardaydu waxa ya garamayaan 10 loo qeybiyey oo qudha, tirooyinka kale ee loo adeegsado isu badalka ee ku saabsan ugeybinta maadaama ayna horey usoo baran, waa in aad adeegsataa hab gooni ah sida tusaalaha 10,000 oo giraamah ooloo badal kilogiraam, siloo badalo 10,000g = 10 × 1000 g = 10 × 1 kg = 10 kg waa in ay ardayda sifiican 100 fahamisiiyaa.

Tusalayaasha marka laga shaqeeyo kadib heer-heer halbeegyada inaga oo ka wayn loo badalay ku yar islamarkaana ka yar loogu badalayo ku wayn oo ay u baahaan tahay in lagu soo nakhtiimo adiga oo ku muujinaya sammurada.

ugu dambaystiina layliska 4.3. su'aalaha lagugu siiyey "b" kuwa ka kooban oo ah (1b, 2b, -------6b) ardaydu shaqo fasal ahaan marka ay uga shaqeeyaan kadib waa in aad usaxdaa, su'aalaha soo hadhayna shaqo guri ahaan waa in loosiiyo, shaqada guriga marka ay ka soo shaqeeyaan kadib waa in loo saxo islamarkaana lasiiyo faah-faahin

Su'aalaha ardayda ay ku waydiiyaay in aad kagacan siiso aad ayay lagama maarmaan utahay

Jawaabaha Hawlgalada

Hawlgalka 4.5.

1. Miisaanka Tukaanada, miisaanka hilibka, miisaanka raashinka, missaan gariirad leh
2. Giraam, kilogiraam, kintaal
3. (b) _____ (t) _____ (J) 100 kg (x) 1000 kg

Hawlgalka 4.6

(b) 45 kintaal   (t) 4500 kg.

Hawlgalka 4.7

42kg

Hawlgalka 4.8

(b) 66.000 kg   (t) 660 kintaal   (J) 66 tan

Hawgalka 4.9

Cutayska hoyada baahgeed waa 65.5 Kg.

Hawlgalka 4.10

b) marwo saynaba   t) marwo Barni

J) 15,000g; 25 kg 1/2kintaal

Tabaha Qiimaynta

Ardayda shaqada fasalka ee aad siisay waa in aad ku dulwareegtaa adiga oo indho-indhaynaya, su'aalo afka ah adiga oo waydiinaya, Adiga oo Bakhtiyaanasiib ahaan u yeedhinayna tirada ay ku xaadiraan waa in ay sammuurada kaga shaqeeyaan oo ay tusaan. waa in aad ardayda fursad aad u siisaa inay su'aalo ku waydiiyaan, imtixaan yar waa in aad siisaa halbeegyada culayska oo lagu diyaariyey kaar biligleh dushiisa waa in ay ardaydu u habeeyaan sida ay u kala Horeeyaan waa in aad ku Jihaysid, marka hore halbeegyada culays ka ee tirooyin kala duwan oo lagu muujiyey filib jaartiga dushiisa adiga oo leh isugeeya ama kagooya si ay ardaydu uga jawaabaan waa in aad samaysaa. Ujeedooyinka waxbarashadan in intee le'eg ayey hirgashay si aad u ogaato ayey kaacaawinaysaa

Jawaabaha laylisyada

Layliska 4.3.

1.	b. 3000g	J. 5105g	Kh. 100,000g
	t. 4650 g	x. 6000g	d. 1000,000g
2.	b. 2kg		
	t. 2.5kg	x. 7500 kg	d. 100,000 kg
	J. 3500 kg	kh. 850 kg	

3.   (t) 50g
4.   (j) 77 kg
5.   (b) 3 kg

Layliska 4.4

1.   b.   1319 tan   x.   37761 kg   kh. 500 kintaal
       t.   16470 kg   j.   1602 kg
2.   51 kg
3.   7 kg
4.   6 kg iyo 390 g

Layliska 4.5

1.   b. 161 kg   j. 1 kg iyo 700 g   kh. 9 tan kintaal ahaan
       t. 94 kg   x. 19 kintaal iyo 95 kg   d.   14 tan iyo 5 kintaal
2.   1150g
3.   49 kg iyo 750
4.   b) 50,000   t) 50 tan

Layliska 4.6

1. b) 25 kg iyo 990g, 29.5 kg; 27, 000 g

   t) 28,500g; 29 kintal iyo 50kg; 30 kintaal iyo 50 kg

   j) 29 taniyo 6 kintaal; 300 kintaal; 30 tan iyo 7 kintaal

2. b) 5.5 kg oo bnn ah; 5g oo cudbi ah; 4500 g oo niis ah

   t) 3 tan oo qabandiah; 2500kg oo galay ah; 20 kintaal oo dheeg ah

3. b) =   t) <   j) _____   x) >

4.3. CABBIRAADA MUGGA

Cutub-hoosaadkan marka uu dhamaado ardaydu waxay awoodi doonaan in ay:-

- *litir ay u badalaan milititir islamarkaana rogaalkeeda*
- *isugeeyaan halbeegyada mugga*
- *kalagooyaan halbeegyada mugga*
- *isbarbardhigaan halbeegyada mugga*
- *fururaan weedh-xisaabeed yada ku saabsan halbeeyada mugga*

Eryada muhiim ka ah:-

litir, mililitir

Hordhac

waxbarashadii fasalkii saddexaad maadada xisaabta waxaad ku soo barateen mugga in lagu cabbiro litir iyo mililitir in la xasuusto waa la awoodaa ku waas oo kusaabsanaa walxaha kaladuwan ee mugga leh (saliida mishiinka, caanaha, saliida cuntada, Rinjiga, irbada sirinjiga, dawada indhaha ee dhibicda ah, quruuradaha kookaa koolada, koobka shaaha, baaldiga iyo wixii u eg) ardayda hortooda ayaa lagu soo bandhigayaa qalabka walxaha aan kor kusoo sheegnay cabbirka ay qaadaan (muggooda) ardaydu in yar in ay gartaan ayey kuu hirgalinaysaa.

Ardayda cabbiraada mugga heerka fasalkan waxa ay u adeegsanayaan halbeegyada in ay u badalaan midba midka kale ayaad ku hogaamin.

Cabbiraadda halbeegyada mugga marka ay awoodaan in ay ubadalaan midba midka kale kadib isugeynta halbeegyada mugga ee leh cabbiraado kala human, kalana gooyaan islamarkaana isbarbardhigaan ayaad ku hawlgalaysaa.

Qaabka waxbarashada ardayda si ay fikirkoodu u kobco siloo sameeyo waxabarashada waa in ay noqoto ficil, Tusaalayaal, iyo laylisyo ayaa lasocda,

Hawlaha Baris-barasho

Waxarashada waxa in laga bilaabo ay tahay in ardayda laga dhaadhiciyo nuxur ka. Mugga taas oo ay tahay, in aan usoo bandhigno mugga ay u adeegsadaan nolol-maalmeedkooda (malqaacada, bakeeriga, quruurada, Baaldig, koobka iyo kuwa u eg) oo la kala soocayo in loo soo bandhigo weeyaan, midwaliba inta dareere ee ayqaado walax waliba litir ahaan amaa milimitir ee xaqiiqada

ah markaad sicad u faahfaahisid kadib ardayda hawlgalka 4.10 koox-koox ama shaqsi ahaan waa in ay uga shaqeeyaan in aad farto ayaa loo baahan yahay. Hawlgalka kadib kaqayb galka ardayda mugga dareerayaasha ee ay qaadaan walxuhu iyo inta ayna qaadin awood aham siay ugu xasilaan fikrad ahaan in loo adeegsado Tirooyin si loo soo koobo way caawinaysaa halkaa iyada oo laga sii wadayo litir iyo militir in la adeegsado marwalba ay habon tahay in lagarto.

Ardaydu hawlgalka 4.11 koox-koox ama shaqsi ahaan in ay uga shaqeeyaan islamarkaana aad ogaysiisid Jawaabahooda xaaladaha ku haboon waa faa`iido wayn. Ardaydu xidhiidhka kadhaxeeya mililitir ka iyo litirka markay fahmaan kadib si ay u awoodan in ay ubadalaan midba midka kale tusaalayaasha 15 iyo 16 uga shaqee, layliska 4.7 waa in aad usiisaa shago guri, litirka marka loo badalayo mililitirka (ku wayn oo loo badalayo kuyar lagudhufto tirada loo badalayo litir (kayar oo loobadalayo kuwayn) tirada loo adeegsanayo marka labadalayo waa 1000 loo qeybiyey, laakin ardayda uqeybinta 1000 maadaama ayna soo baran, tirada lagu badalayo ee lagu dhufanayo 1000 waa in loo adeegsadaa in loo dhiga dhufsanayasha 1000 sida loogu baahnaa si loogu badalo waa in aad ka gacansiiso ayaa loo baahan yahay, tusaale ahaan 1500 ml haddi loo badalayo litir 15000ml $=$ 15×1000 ml marka ay keenaan kadib su'aal kasta waa in ay jawaabta siisaan, ardaydu su'aalaha ay sixi waayeen sabuurada iyada oo lagu qorayo inta ay soo kacaan ay ka shaqeeyaan inta lasaneeyo sixitaan iyo sharaxaadba waa in aad u samaysaa. Ardaydu kolba meesha ay marayaan meelaha ay ka haysato dhibaatooyin ama ay fahmi waayeen su`aalaha ay kuu waydiiyaan waa in aad ka gacansiisid in ay noqoto talaabada in aad qaadataan ayaa loo baahan yahay.

Isugeynta iyo kalagoynta cabbirada halbeegyada mugga ayaa loo dhigayaa, ardaydu hawlgalka 4.13 koox-koox waa in ay uga shaqeeyaan islamarkaana aad ku soo dhawayso in ay sheegaan jawaabaha waa talaabo wanaaqsan, isugeynta iyo kale goynta si ay u awoodaan tusaalayaasha 17 iyo 18 ardayda u faah-faahi tusaalayaasha kadib layliska 4.8 ardaydu su`aalaha qaarkamid ah hakaga shaqeeyaan fasalka dhaxdiisa inta soo hadhayna gurigooda in ay kaga soo shaqeeyaan oo ay keenaan fursad waa in aad u siisaa, ardaydu layliska lasiiyey marka ay kaso shaqeeyaan kadib dhibaatooyinka ama qaladada aad ku aragtay inta laga wada hadlo loona gudbo sixitaan iyo sharaxaad in lagu saleeyo aad ayey uhaboon tahay, ardaydu si ay kuu waydiiyaan su'aalaha ay ku waydiiyeen si habsami ah in aad ugu adeegto way haboon tahay,

Ugu dambayna ardayda halbeega mugga cabbraddiisa in ay isbarbardhigaan si ay u awoodaan, hawlgalka 4.12 adiga oo siinaya waa in ay ka shaqeeyaan kadibna aad ka wada hadashaan ardayda si wadajir ah taas oo aad uga caawinaysa in ay ardaydu ku dhiiradaan in ay ka shaqeeyaan .

Hawgalka ardaydu si ay u gartaa shaqooyinka laga sugayo waa in aad maanka galisaa.si aad usamayso tusaalaha19 u faah-faahi.ugu dambayna shaqooyinka aad ku aragteen waa in aad u soo gunaanadaan.

Layliska4.9 ee lagugu siiyey su`aalaha 1(b),(t),(j) in ay fasalka dhexdiisa kaga shaqeeyaan inta hadhayna ay shaqo guri ahaan uga soo shaqeeyaan kadibna ay keenaan.

Su`aalaha loo siiyey in ay ka soo shaqeeyaan, marka ay ka soo shaqeeyaan ee ay keenaan kadib waxaa loo baahan yahay oo aad u haboon in lasiiyo jawaab celis

Jawaabaha hawlgalada

Hawlgalka 4.11

1.   Hal bakeeri ayaa qaada 20 ilaa 25 maqaacadood oo boorash ah

2.   Hal falaasad iyo hal bakeeri waxa ay qaadaan 3 ilaa 6 bakeeri

3.   Hal baaldi iyo falaasad ayaa qaada 20 ilaa 25 falaasadood

Hawlgalka 4.12

1)   mm   2) mm   3) litir   4) mm
5)   l   6) l

Taabaha qiimaynta

Cutubkan cutub-hoosaadyada uu ka kooban yahay mid waliba faa`iidada uu lee yahay oo la fiiriyo su`aalo afka ah,shaqo-kooxeedyo,islamarkaana iyada oo sideeda loo eegayo cutub-hoosaadka,dhamaadka cutubka marka la gaadho tijaabo guud ahaan ah waa in lasiiyo ardayda si loo qiimeeyo aad ayey u haboon tahay.Adiga oo adeegsanaya ama ka duulaya natijada ay ardaydu keentay.Wax yaabaha badan ee loo baahan yahay adiga oo darsay in aad ficil ahaan ku muujiso oo aad gudogasho faa`iido ayey leedahay.tusaalayaasha lagu siiyey oo kale su`aal iyo jawaab ahaan waa in aad ku soo diyaarisaa jaarti ama kaar bilig leh waa in la waydii yaa ardayda islamarkaana ay ardaydu ka jawaabaan inay buuxinayso meelaha inaga dhiman waa in maskaxda lagu hayo.

Layliska 4.7

1.   b) 7000ml   t)25l   j)10500ml

     x) 978ℓ   kh) 250750ml   d) 250.25ℓ

2.   b) 2   t) 4   j) 100   x) 10

3.   b) 250   t) 100   j) 10

4.   b) 4   t) 6   j) 14   x) 20

5.   b) 4   t) 10   j) 15   x) 40

Layliska4.8

1.   b. 8237ℓ   t. 10273ℓ   j. 5099.80ℓ

2.   b. 269165ℓ   t. 75ℓ iyo 100mm   j. 1165.25ℓ

3.   144ℓ

5.   55.5 ℓ

Layliska4.9

1.   b.   >   t.   =   j.   <   x.   >   Kh.   =   d.   <

2.   b.   waa rigaax   t.   250 ℓ

3.   b. 190ℓ , 195ℓ, 200,000ml

      t. 999,000ml, 999.9ℓ, 1000ℓ

      j. 274ℓ, 275.8ℓ, 275ℓ iyo 900ml

      x.   100 rubuc oo litiro ah, 100 nus litiro ah

CUTUBKA 5aad SHAXANNADA SALLAXA IYO KUWA ADKAHA AH

HORDHAC

Agagaarkeena waxa jira walxo leh muuqaab kala duwan oo ah muuqalo sallax iyo kuwa adke. Muuqaladan oo la gartaa lana darsiyaa waa laga ma naarmaan. Cutubkan waxa lagu soo bandhigay mawduuxyada xagal quman xariiqaha toosan sallaxyo wareega iyo bedka laydiga iyo labajibaarane iyo muuqaalada adkayaasha.

Ujeedooyinka baris barasho

Ardaydu markay cutubkan dhammeeyaan

- Waxay fahmayaan xagla quman. Waxay yiliin, waxayna sawirayaan xaglaha quman.
- Waxay fahmayaan Baraha, xariiqaha toosan iyo Adkeyaasha ah
- Waxay xisaabinayaan wareega iyo bedka laydiga iyo labajibbaarane,
- Waxay fahmayaan shaxanada adkeyayaashu qaabkooda, waxayna samay nayaan oo ay soo bandhigaan moodheellada adkeyayaasha.

Kaabayaasha barashada casharkan

- *Mastarad, qalin qori moodheellada xagal-quman laydi, laba jibaarane, biriisam, saddax jibaarane, toobin biraamid*
- *Dun dheer ama gundhiska kabaha lagu tolo, musbaar, xamagta waxisku dhajisa, maqas, kaartoon, shay afar geesleah*.

5.1   XAGAL- QUMAN

Xiisadaha loo qoondeeyay cutub hoosaadkan waa 3 xiisadood

Ujeedooyinka gaarka ah

Ardaydu markay dhammeeyaan cutub hoosaadkan waxay awood u yeelan doonaan

- Soocida iyo garashada xaglaha quman.
- Waxay tilmaamayaan iyagoo ka soocaya waxyaabaha deegaakooda laga helo xaglaha quman.
- Dhisidda xaglaha quman

Erayada Muhiimka ah

Xariiq qotome. Xariiqaha isgoysaalka xagal. Xagalquman dhisid.

Hordhac

Ardaydu cutub- hoosaadkan waxay ku baran doonaan qaybo casharo ah oo kala ah soocidda xaglaha quman iyo dhisida xaglaha quman sidaas darteed barista cinwaanadan tabo gogoldhig u noqon kara ayaa hoostan lagu soo bandhigay.

Hawlaha baris- barasho

5.1.1   Soocidda xaglaha guman

Ardaydu haddii ay jirto wax ay ka garanayaan xagal quman si ay asxaabtooda ugu bandhigaan su'aalahan soo socda oo kale waad u diyaarin kartaa.

1.   Xagal quman waa xagal noocee ah?
2.   Soo sooca xagal-quman qaabu ueg waxyaab ha idiin muuqada ee aad aragtaan.

Marka aad su'aasho kadib adigoo ka duulaya jawaabaha ay ardaydu soo gudbiyeen waxaad siin kartaa sharaxaad kooban oo ku saabsan xagal.

Intaa kadib ardaydu kuraasta ay kufadhiyaan dusheeda iyagoo kooxa ah ku hawl- gali Hawl 5.16 ee kuxusan buugga ardayya iyagoo kawada tashanay si ay uga shaqee yaan. Habkan shaqada ah ardaydu.

1. Inay isku dayayaan samaynta xagal- quman iyagoo gacmahooda dhinac ukala bixiyey (jidhkooda dhinac uga fidiyey).
2. Su xulkooda(jiqilkooda) xaga laabatada ah marka loo laabo inay markaa sammeeyeen xagal – quman ugu hubi, kana caawi
3. Sabuurada cidhifka jooga iyo cidifka gudubka ah u sharax inuu u sammay san yahay xagal- quman
4. U sheeg in miiska fadhiyaan cidhifyadiisa gudub ka iyo dhererka laga abuuri kara xaga xagal quman.
5. Labada xariiq ee gudban ee T siday ku ar keen xariiqaha gudboon waa lagaga jawaabi karaa wuxuu samay smi karaa xagal- geesood.

Shaqadan waxaa lagu soo koobi karaa xariiqo gudboon oo laboah jog iyo gudub islamarkaa bar kulan leh waxay abuurayaan xagal waxaana layidhdaa xagal geesood. Hubi weedha ama odhaahdan inay fahmeen.

B. moodheellada (waxyaabaha look ekeysiiyey) adigoo eegaga bogg walba

- Cidhifyada kor iyo hoos ee gudboon
- Cidhifyada joogga ah ee dhinacyada
- Inay awoodeen tilaamida cidhifyada gudboon

T. Bogg walba 4 xagal- geesood inuu leegahay markay tilmaameen kadib salkooda marka lagu daro 6 bogg maadaamuu leeyahay guud ahaan 4×6 24 xagal – geesood inay jiraan hubi sidaa u qeexaan

Tabaha qiimaynta

Cinwaanka casharkan ardaydu xagal- quman ka inay soo sooceen islamarkaana tilmaameen si aad u ogaato ama aad u xaqiijiso suaalahan soo socda oo kale adigoo adeegsanaya ayaad ku qiimayn kartaa. Kuwan ku xusan halkan keebaa aan tilmaamaya in xagal- quman?

b. Barkulanka ay ku kulman cidhifyada waraaqda buuggtiina.

t. Gidaarka iyo bilifoonka cidhifyda ku toosinysa garbaheeda xagasha ay tilaama ayaan lugaheedu.

x. Albaabka gurigiina cidhifka sare iyo cidhifka xagasha ay tilmaamayaan.

Jawaab- J. ardayad u tagan lugaheeda iyodoo ku toosin aysa garbeheeda.

Qaabkan sii' aalaha sida looga jawaabayo aradudu kuwo kasta oo laga dooranayo faah faahin waa laga siin karaa maxay run ama been u noqonyaan. Qiimaynta noocan ah iyadoo lagu sallaynayo casharka ku xiga waad u diyaarin kartaa.

5.1.2 Dhisidda (Sawirista) xaglo-quman

Ciwaanka casarkii hore aedaydu waxay ku barteen qaabka uuleeyahay xagal-quman ka. Xaglaha quman kala duwan ee laga helo deegaanka adigoo u adeegsanaya tusaale ahaan xasuusan ayane inta kadib ardaydu inay hadda kadib inay awood ayaan sidii ay sawiri lahaayeen islamark aana ay baran doonaan.

Kadib Hawlgal 5.1 T sida ku xusan ee isugu xigaan marka hore xarriiq joogg ah inay sawiraan kadib tilmamaan kadib waxaad ku dhiiri galinaysaa xariiqa markay jeeayaan in ay u adeegsadaan mastarad, buuggooda cidhifkiisa ama warqad cidhifkeed si ay ugu toosiyaan dhibcaha ugu yaala gudubka xariiqa gudboon. Kadib adigoo adeegsanay looxaanta u samaysan xagal- geesoodka ugu xaqiiji inay si fiican u sawireen.

Ugu dambayn xaglaha ay sameeyeen haddii uu sax yahay xagasha abuuratay u hubi xagasha ay sooceen inay xagal- quman tahay.

Xagashan quman oo kale silo sawiro xagashiisa geeskaa ah marka laasawiro kadib silloo cabbirro sida saddexagal quman oo kale qalabyada ah maadaama ay faaiido leeyihiin in loo diyaarsado shaqadan oo kale fadiido ayey ardayda u ledahay.

Arday du sida layliska 5 labada su'aalood ee laga siigey ku hawl gali si shakhsi ah in ay uga shaqeeyeen. Xariiqaha gudubka ah ee ay sameeyeen inay xagal- geesood sameeyeen qalabka looxa ah ee sumayan xagal- geesood sameeyeen qalabka looxa ah ee sumaysan xagal- geesood ka adjgoo adeeg sanya ku dhereri (ku qiyas) si aad ardayda ugu hubisid. Ardayda xagal- geesoodka inay sawirkiisa aloodeen iyo inkale sidaa qiimayso habkan qiimaynta ee socota waa adeegsan kartaa.

Tabaha qiimaynta

1.   Kuwan soo socda siday isugaan iyo ugu shaqeeya.

   b. Sammeeya idin koo adeegsanaya mastarad iyo qalin qor xarriiq jiifah (gudub ah)

   t.   Dhaxbadhtanka xarriiqa dushiisa dhibic ka muujiiya

   j.   idinkoo cidhifka mastarada adeegsanaya dhibicda dusheed ku sameeya xarriq joogg ah

   x.   xagasha lasameeyay idinkoo adeegsanaya rukunka-labajibaaranaha.

Shaqooyin kuwaas oo kalah illaa heerka ay gaadheen adigoo indha indhaynaya ayaad ka qiyaas qaadan kartaa jawaabahooda kadibna cashirka xiga ayaad u billabaysaa.

Jawaabah layliska 5.1.

Fallawaadha muuqaalkaada aad araqtaan waa xaglo quman

5.2 BARAHA, XARIIGAHA TOOSAN IYO SALLAXYADA

Waqtiga loo qoondeeyay (5xiisadood)

Filnaan

Casharan marka uu dhammaado ardaydu:

- Waxay qee xayaan sallaxyada   iyagoo adeegsanaya waxyabah deegaankaada   laga helo.
- Waxay sharraxayaan xidhiid meeleedka, ka dhexeeya baraha, xariiqaha toosan iyo sallaxyada.

Erayada Muhiimka ah.

Bar, xariiqa toosan, Sallax

Hordhac

Cutub- hoosaadkan arday waxay xirfad iyo aqoon uyeelan doonaan waxyaalaha loo yaqaano dhibic, xariiqa toosan iyo nuxur kooda. Degaankooda ama

Fasalkoodawaxyaabaha kala duwan ee laga helo siday isugu aadin lahaayee ama utilmaamii lahaayeen.

Ardaydu fasalka sadddexaad casharadooda waxaad ku xasuusin kartaa oo muhiim ah halka shaxan indhibcood ee uu leeyahay, xariiqaha toosan, muuqaalada afar gees laya asha iyo goobinka- cutub-hoosoodkan waxaad faahfaahin buuxda kasiinaysa baraha, xariiqaha toosan iyo shaxannado qaabka ay boosas kooda u galaan.

Kadib ardaydu si ay sifiican ugu fahmaan nuxurka iyo ujeedado shaxanka buugga ardagga bogg – shaqada ku xusan 5.2.B kuraastooda iya goo fadhiya oo kawada tash anga ku howl------------ gali si ay ugana shaqeeyaan. Iyadoo sidan ah waxyaa baha deegaankooda laga helo.

1. Qaabka sallaxa waxyaabaha leh iyagoo tirinaya garoon aanan lahayn wax qalqalloc iyo burbuur, sida uu buuggooda xaashidiisa kala baxsan yahay, sallaxa kabadhka, sallaxa gidaarka , wm
2. Waxyaabaha aanan lahayn qaabka sallaxa waa kubadda, aqal soomaali saqafka guryaha, dhagax aan laqorin, malqaacadaha god godan, WM ahyaa tusaale loosoo qaadan karaa.

Haddaba waxaa lagaaga baahan yahay inaad kana caa wiso ardada si ay iyagu u sheegaan waxyaabaha qaab markaa shaqsi shaqsi ah.

Buugga ardayga bogga 88 sida tusaale 1 ku xusan hal qol (fasal) afarba giddaar shaxanadoodu inay fahmeen inaad xaqiijiso waa lagama maarmaan.

Buugga ardayga bogga 89 tayliska 5.2 % -----waxya laha kuxusan kuwa tilmaaya qaableyaasha iyo qab laawayaal si ay ardaydu ukala saaraan ku hawl gali shaqo fasal waxay u faa iidaynaysaa ardayda inay fahmaan shaxanda qaabkayaasha.

Marka loo eego waxyaabaha taxan siday isu xigaan tiro ahaan 1,2,3,10 iyo 11 ay ku arkaan qololka shaxanka ah inay yihiin inta kalena kuwa aan qaabka shaxanka lahayn in ay yihiin adigoo horey ugu diyaariyay waraaqaha sawirka faah faahina ka siinaya ayaa loo baahan yahay inaad arday ku fahansiiso. Soo bandhigedda noocan nuxurka iyo hadafka qaableyaasha ama shaxana waxyaabaha leh qaab kaas ayey kobcinay sa islamarkaana kor u qaadaysaa xirfaddna ay ardaydu u yeelanayaan adiguna markaad faahfaahin dheeraad ah aad u raaciso way xoojinaysaa fahanka ardayda.

Xidhiidhka ka dhaxeeya meel qabsashada baraba xariiqaha toosan iyo sallaxyada

Casharkan cinwaan kiisa waxaad ubillabi kartaa adigoo xasuuinaya ardaydu inay fahmeen xariiqa toosan, dhibicda iyo shaxan ka (qaablayaasha) kadibna muuqaaladan habka ay boosaskooda ay galaan in uu kusaabsan cashar kan adigoo u tilmaamaya ayaad buugga ardayyga bogga 88 sida ku xusan shaxanka habka la isuugu meeleeyo sida kartaa faahfaahina kasiinaya. Shaxanku hal god ama dhibcaha aan halka xariiq ee shaxanka kujirim saddexa dhibcood ah ayaa lagu muujin karaa waa inaad adigana adoo tusaya faah faahina ka siinayaa una tusaalayanaya aayaad ardayda ku fahansiinaysaa buugga ardayga bogga 88 sida tusaale 1 sii' aalaha ku xusan dhibcaha iyo madhan ee la isugu meelaynayay inaad ardayda warqaliso ayaa loogu talo galay.

Su aalahan iyo jawaabahooda waxa habboon inaad ugu celceliso ardayda. Xariiqa toosan AB iyo dhibcaha A,B<C,D< iyo F waxay ku jiraan shaxabnka Q   dhibicdac xariiqa toosan AB kor kiisa

ayay taallaa. Dhibcaha A,F,B D na xariiqa toosan AB hoosteed ayey taallaa. Dhibcaha A, F,B na waxay Ku yaalaan xariiqan toosan. Ab adigoo sidaa leh waa inaas ugu faah faahisaa ardayda. Sikalena xariiqa toosan ee kale meelaynta dhibcaha iyo shaxanka isku xidhkooda si ay u fahmaan buugga ardyga bogga 88 sida ay ugu suuro gali karto ardadu iyagoo kali kali ah ama kooxo ah marka ay isku dayaan kadib jawaabta ku habboon adigoo ka siinaya ayaad u haggajin wixii khalad ah.

Sidaa si lamid ah tusaale 3 shaxanka muuqda ar waa suaalo kusaabsan qaabkii ama habkaa la isugu xidhi laha loona dhigi boosaska ay ku habboon yihiin.

Haddaba sida tan shaxanka R waa shaxan u kala baxsan gudub dhibicda J shaxamka R ayey ku jirtaa xariiqa toosan ee EF waxaa uu yaallaa shaxanka R hoostiisa ayaa adigana lagaaga baahan yahay inaad xaqiijiso inay ardaydu sidaa u fahmeena. Intaa waxaa dheer dhibicda I xariiqa toosan ee EF iyo shaxan ka R dhexdood inuu yaalo dhibicda kalena shaxanka R hooskeeda ayuu yaalla iyo xariiqa toosan ee GH koorkiisa in uu yaallo ayaa loobaahan yahay loobaahan yahay inaad u fiirsato inay sidaa u fahmeen. Hadda ba qaybtan casharka ah inta aadan na khtiimin kahor waa in ardaydu si kooxo ah suaalaha 5.2 ku xusan iyagoo kawada tashanaya kashaqeeyaan kuna dhiiri gali si ay jawaabahooda usoo bandhigaan waxaana adigoo kormeeraya isla markaana indha indhaynaya taageero ka siisaa.

Jawaabaha shaqada koox – kooxda ah ee 5.2

1.   B. Run   4.   x.   Been
2.   T. Been   5.   Xariiqa Cd
3.   J. Run   Kh.   Been
                                    D.   Run
                                    R.   Been

Jawaabaha layliska 5.2.J

1.   b.   Shaxanka DEF iyo shaxanka ABC waxay yihiin shaxaano isu gudboon (shaxannada korkooda saddex dhibcood oo kasta in lagu tilmaami karo waa in laxasuunaadaa)

       t.   shaxanka DEF iyo shaxanka ABC dhibicda ka dhaxaysa waa xariiqa toosan ee Cd.

2.   b.   qaybaha shaxanada hadday isu aadan yihiin ee shaxanka ABD, waxaan ku dhex jiri kara shaxanka FGHE iyo shaxanka KLJ.

       t.   joogg isle'eg yihiin boggaga bidix, midig iyo hoos iyo kor gudaha (qaybaha) shaxanka saddexda gudud waxay yihiin kuwo ku gudboon shaxaada.

       j.   boggaga iska gud- gudbaya waa gudub, isdhaaf iyo dhinac ee shaxannada muuqaalka gaarka ah leh waana xariiqaha toosan.

5.3 WAREEGA IYO BEDKA LAYDIGA IYO LABAJIBBAARANAHA

Waqtiga loo qoondeeyay (7xiisadood)

Ujeedooyin gaar ah

Casharkan marka uu dhammaado ardaydu waxay awood u yeelan doonaan

- Inay qeexaan muuqalada shaxanka wareegiisu waxa uu yahay.
- Waxay raadinayaan wareeqa guud ee laydiga iyo labajibbaaranaha
- Waxay sawirayaan isla markaana isbar- bar dhigayaan ballaca muuqaalada Laydiga iyo laba jibbaaranaha iyaga oo u qayb- qaybi naya afar geeslayaal.
- Waxay furayaan ama ka jawaabayaan masallooyimka ah ballaca iyo wareegga laba jibbaaranaha iyo laydiga.

Ereyada muhiimka ah:- Halbeega Bedka

Hordhac

Cutub- hoosaaskan muuqaalada shaxan ka waxa uu yahay wareegoodu, ballaca iyo wareegga labajidbaaaranaha iyo laydiga qaabka looga shaqeeyo iyo waliba masalloyin ku sabsan ballaca laydiga iyo laba jibbaaranaha habkii loo furi laha ama loga jawaabi lahaa ayuu kakooban yahay.

Hawlaha baris- barasho

Cinwaanka casharkan waxaa loo qaybiyay laba ciwaan- geseed oo casharo ah waano warreegga laba jibbaaran aha iyo laydiga, iyo ballaca laydiga iyo laba jibaaranaha iyo waxaa iyana ku diyaarsan habkii loo furi lahaa masalloyinka ku saab san wareegga iyo ballca sida loo raadiyo.

5.3.1 Wareega labajibbaaranaha iyo laydiga

Barista casharkan waxaad ugu billaabi kartaa marka xasuus buuxda aad kusamayso ardayda laydi laajibbaarane wax ay yihiin sidii ay diyaarinaysaa waraaqaha ay ku soo barteen- casharkan waxaad ugu diyaarinaysaa waraaqaha farshaxanka oo aad ku diyaarisay muuqaalada shaxanka laydiga iyo jibbaaranaha

Buugga ardayga shaqada 5.3 B su'aalaha ku xusan sidii kolba ay ugu suurto gasho ardaydu si shaqsi ama kooxo ah iyagoo kuraastooda fadhiya oo kawada tashanaya ayaad ku hawl- galina- ysaa laydiga iyo labajibbaaranaha. Waxaana habboon waxyaabaha ay kaga duwan yihiin muuqaalada kale ee shaxanka maad si fiican u fiirsato.

Shaqadan ardaydu sidii hadda kahor ay laydiga iyo labajibbaaranaha iyagoo xasuusanaya isla markaana sifiican casharkoodan ay fahmilahaayeen ama walqabsan lahaayeen ayey muhiimed diisu tahay.

Buugga ardayga bogga 91 u fiirsada meesha lagu xusay ujeedadiisu waa ardaydu laydiga iyo labajibbaaranaha waxa ay yihiin ayaa laga filayaa inay u xoojisa aqoontooda

In kadib buugga ardyga bogga 90 shaqada kooxdah 5.B ku xusan----------- ardaydu iyagoo kuraastooda fadhiya kana wadatashanaya sidii ay ugu shaqayn lahaayeen adigoo caawimaad ka siinaya kormeerayana islamarkaasna indha- indhee. Ardaydu shaqadan kooxda ah habka loo raadiyo wareegga laydiga iyo laba- jibbaraha inta aynan dhigan kahor waxay u faa'iidaynaysaa sidii ay u fahmi lahaayeen nuxurka muuqaaladooda.

Shaqadan kooxda habka looga shaqeeyo waa inaad hubisaa ardaydu inay heleen wareega laydiga iyo labajibaaranaha santimitir ama mitir ahaan kadib meesha kuxigta ee ufiirsada a ku qoran tahay waxaad kartaa inaad sabuurtada ama waraaq aha waawayn oo aad ugu sawirto uguna qorto laydiga iyo laba jibbaaraha kadibna u faahfahi. Si ay xirfadooda raadinta warreegga laydiga iyo labajiibbaar anaha kor ugu qaadaan waa inaad u sharaxdaa islamarkaana ka qayb galisaa ardayda tusaale1 iyo tusaalre2 ee ku xusan buugga ardayga bogga 91

Intaa kadib buugga ardayga sida kuxusan raadinta gaaban and kooban ee wareegga laydiga iyo labajibbaaraha uguqor adigoo kana dhaadhicinaya sabuurda ama waraaqaha waawayn.

Qaabkan raadinta wareegga layga iyo labbaaranaha si aad si dheeraad ah aad ugu bar- barto ardayda ku hawl- gali shaqada kooxda ahee 5.3.T

Intaa kadib arday walba inuu fahmay kana shaqayn kara si aad ogaato layliaska 5.3.B su'aalaha kuxusan qaarkamid ah shaqo fasal u sii si aad ugu saxdo. Su'aalah kasoo hadhayna sikaballaadhan iyo raadinta u bartaan shaqo guri usii waxaan habboon inay ku soo shaqeeyaan gurigooda hadddaba qaabkan waxbarista ah dhexdeeda ardayda waxaad ku arki kartaa kala duwanaasho xagga fahan ka aedayda heerka sare ee kalkaalinaya kuwa kale waxaa lagaaga baahan taaheero gaar ahaaneed inaad siiso adigoo gacanyare yaalkadhiganaya gaar ahaaneed inaad siiso adigoo gacanyare yaal kadhignaya kuwo hoosena waa inaad iyagana xoogga saarta caawintooda .

Habka (furaha) ah radinta wareegga laydiga iyo labajibbaaranaha adigoo u nakhtiimaya una xoojinay siaad u ogaato in ay fahmeen nuxurka (muhiimada) casharka waxaa laqaaga baahan yahay qaabkan qiimaynta ee sooscota inaad adeegs ato.

Tabaha qiimaynta

Ku hawlgali- su'aalahan soo socda oo kale

1. Laydi haddii uu ballaciisu yahay 40mitir dhererkiisa(jooggiisa) yahay 60mitir raadi wareeggiisa.
2. Raadi wareegga labajibbaaraha dherekiisu yahay 300mitir.

Waxaa haboon isla markaana lagaa filayaa ardydu marka aad jawaabtooda aad ka ogaato may dhammaantoodu fahmeen ayaa u diyaar garaawaysaa casharka kale ama ku xiga.

Jawaabaha laysliska 5.3.B

1. b. 40sm   j.   64sm   t. 32sm

2. 360mitir   3.   1600 mitir   4. 1530mitir

5. b.   240 mitir   t.   240 mitir

2.   Ballaca Labajibbaaraneha iyo laydiga

Casharkan waxaan ku baranaynaa sida loo raadiyo ballaco laydiga iyo   laba jibbaartanha – waxyaabaha   nolol maalmeed nala darsa tusaale ahaan boosaska duulka (jagooyin) guryaha, dharka I WM waxaa haboon inaan ballacooda raadin karna sida odhaahdaas oo kale adigoo u wargalinaya casharka ayaan ku baranaynaa sidaa aynu u raadin lahyn ballaca laydiga iyo laba jibbaaranaha. Adigoo leh ayaad billaabaysaa.

5 santimitir iyo 35   mitir labajibbaaranayaal ah shax kala qayb qa ybsan intaad samayso ayaad kaaba ama qalab waxba rasho aad ka dhigan kartaa kadib waad u diyaain kartaa. Hubi arday walba in uu wato qalin qori iyo mastard.

Kadib buugga ardayga bogga 93 shaqada ku xusan 5.3.T--------------- arday du iyo goo fadhiya kuraastooda oo kawa tashanaya kudada sidii ay ugu shaqayeen adigoo ku dul wareegayana wixii taageero ah kasii. Shaqadan buugga ardayga muuqaalka sida ka muuqada ardadu bedka 3 isle'eg dherekuna (joogguna) 5 meelood oo isle'eg ku fahansii ardayda in jog iyo gudul xariiqa ah ukala qaybsan yihiin.

Habkan shaqada ah 55.M iyo 35.M ee lasiiyey laydiga ah 15.M iyo 15.M labajibbaarne ah inay 15 labajibbaarane oo yar yar loo kala qay qaybiyey xagiiji in ardaydu sida u fahmeen   marka sidaa loo eego sikale iyadoo loo sheegayo 15 labajibbaa ne oo yar yar oo ah 15M iyo 15M inay buuxin sida u fahmeen. Iyo labajibbaaranayaashan kasoo baxa may ise'eg yihiin hubi dhammaan ardaydu sidaa u fahmeen.

Intaa kadib

1.   Siaad u hesho ballaca laydi waxaa la is ku dhufanaya bedka iyo dhererkiisa.
2.   Ballaca sida lagu raadiyo waa 15M oo labajibbaaran ama 1 Mitir oo labajibbaaran iyo adoo sidaa layidhi laydiga ku xusan ballaciisa sida loo raadiyo sabuurada ama waraaqaha wayh ugu qor sida ku habboon ee markaa ardaydu ku fahmi karaan ugu dhaadhici.

Tusaaleha 5 muuqaalka ku xusan laydi ma'aha waa muuqaal ku tusi kara laba laydi kuwo loo qaybiyey dhibcaha kala googo an waa kuwa kala qaybiyey laydiyada. Laydiga jooggiisu dhibco laydi ballacoodu marka la isugeeyo(wadarfoodu) waxaa u noqada yaa laydiga. Habkan si ay si fiican ugu fahmaan shaqada kooxda 5.3J kuraastooda iyagoo fadhiya oo kawada tashanaya ku hawl-gali siay ugu shaqeeyaan. Shaqadan kooxda ah ma'aha oo kaliya inay raadiyaan ballaca labajibaarane iyo laydi ee waxaa dheer wadarta kasoo baxda inay isbar- bar dhig ku sameeyaan.

Jawaabaha shaqada ah ee 5.3J

B.   labajibbaarane dhererkiisa(jooggiisa) yahay 6 mitir

T.   ballac isle'eg ayay leeyihiin

J.   labajibbaare joogiisu yahay 9 mitir.

Habka Qiimaynta

Habkan soo ban dhigda casharka qaabka ay ardaydu u gudoo mayaan maadaama ay kala duduwan. Tahay waxaa loo baahan yahay wakhti dheeraad ah inaad siiso ardayda itaa waxaa dheer ardaydan arday du fahankoodu sarreeyo sidii ay dulqaad u yeelan lahaayeen ayaa loobaahan yahay inaad samayso haddaba habkan shaqada ah ardaydu casharkan inay sidii loo baahnaa uraadinaan jidka lagu raadiyo si aad u ogaato ama aad qiimayso layliska 5.3T ku hawl- gali intaa waxaa dheer waxaa habboon laylisyadan hoos ku qoran oo kale inaad ku hawl- galiso.

Laylisyada dheeriga ah

1.   Ka jawaaba idinkoo leh run ama Been.

    B. labajibbaaraane 7 mitir iyo ah iyo laydi 8 mitir iyo 5 mitir ah way is le'eg yihiin.

2.   Ka dooro tii sax ah garoonka kubbada cagta oo ah 119 mitir iyo 75 mitir

    b.   35 mitir oo labajibbaaran   j.   185 mitir oo laba jibbaaran

    t.   370 mitir oo labajibbaaran   x.   8250 mitir oo laba jibbaaran

Jawaabaha layliska 5.3T

1. b.   200 s.m 00 labajibbaaran   j.   1024M.00 labajibbaaraan

    t.   1456M00 labjibbaaran   x.   3000M.00 labajiibbaran

2.   500 m.00 laba jibbaaran

3.   10,000M00 labajibbaaran

4.   14,400s.m. 00 labajibbaran

5.   59.9M. oo labajibbaaran

6.   b.   8sm iyo 8 s.m   t.   .labajibbaarane ah 6m. iyo 6M

    j.   daarad ah 1.60M iyio 2.40M.

5.4. ADKEYAASHA FUDUD

Waqtiga laa qoondee yay (5 xisadood)

Ujeedooyinka gaarka ah

Cashartkan marka uu dhammaado ardaydu:-

- Waxay soocayaan waxayaabaha deegaankooda laga helo sida goobooyinka, tuubbooyinka, xarriiqaha toosan ee iska horjeeda waxyaalaha u'eg shayada hoosta ballaadhan korkana ka dhuuban iyo kuwo kaleba.
- Waxay soocayaan isku ekaanshaha iyo kala duwanaan shaha ee muuqaalada adkayaasha.
- Waxay awoodayaan inay sameeyaan moodheelo(u'ekayaal) laga sameeyay kartoon ama baakidho oo muuqaalada adkeyaasha.

Erayada Muhiimka ah:- Shaxanada adkeeyasha, saddax jibaarane, Biriisam, Dhululubo, Toobin Biiramid, Isfeer.

Hordhac

Cutub hoosaad kan waxaa uu ka kooban yaahay laba ciwaan hooseedyo oo casharo ah . kuwaasoo kale ah kala soocidda muuqaa lada adkeyaasha iyo diyaarinta muuqaalada adkeyaasha. Waana sida ay ukala horreeyaan.

5.4.1 Soocidda Qababka Adkeyaasha

Ugu horrayn barista cashirkan waa inay diyaar ahaadaan waxyahabaha toosan ee iska horjeeda, dhulubo shay ah, tuubo, waxmalaasan, shay hoosta kaballaadhan korkan ka dhuuban iyo shay sida ahraanta oo kale ah oo laga sameeyay karaatoon ama qalabka kale oo tilmaamaya iyo waraaqaha waawayn ee sawirka oo lagu xardhay muuqaaladooda.

Ardaydu sida shaqada 5.4B 94 ku xusan muuqaalada qaradka ah(adke ah) in ka shaqeeyaan soo soocida muuqaalad aasayaa buugga ardayga muuqaaladaa kuwo u eg loogu diyaa riyey siay u gartaa marka hore su' aalo waad ka way diin kartaa. Waxyaabha deegaankooda laga helo ee u eg moodheelada (u'ekeyaasha) kuxusan buuggooda xidhiidhka ka dhaxeeya ayey raadinayaan iyagoo iska kaashanaya oo kuraastoo da fadhiya si ay usoo soocan waxaa loobaahan yahay adigoo tusaalayaal siinaya maad ka caawiso.

Tusaale

- San duuqa lagu rido dharka iyo backidhka kibriidka uu ku jiro iyo waliba waxyaalaha lamidka ah ee sanduuqya ada ah waxaa ay u eg yihiin piriism.
- Ciyaarta riyo- kadhalista looyaqaano eeleh ilaa bdgod 6 deedaa good oo islaa le'eg waxay ueg yihiin 6 caag oo ah caagadaha kaydka biyaha.
- Daasadaha iyo foostooyinka(barmiilada) waxay u egyihiin siliindar(cylinder
- Kubada iyo dhagaxo sida goobada umalaasam ee lagu ciyaaro waa waxyaalaha malaaasan. Adigoo sidaa leh ayaad siin kartaa fusaal looyin noocaas oo kale ah.
  Intaa kadib waxyaaba has aad u soo qaadatay kaabay aal u faah faahi waxyaalaha ay tilmaamayaan. Kadib shaqada kooxda ah5.4 B iyo laylisska 5.4 ku hawl – gali siay uga shaqeeyaan.
  Ardaydu waxyaalaha muuqaalada adkayaasha ah ee deegaamkooda loga helo iyagoo isku aadinaya islamaka ana inay sooci karaan iyo in kale sidaa u xaqiijiso kuwan soosocda ee qiimaynta ah adigoo adeegsanaya ayaad ku hubin kartaa inay ardayda fahmeen u jeedada casharka.

Tabaha qiimayanta

Casharkan isbadelka dabeecadecd ee ardayda looga baa han yaha inay keeneen su'aalahan soo socda oo kale intaad u diyaariso adiggoo silnaya jawaabaha kaaga soo baxa ayaad ku qiimaya kartaa.

1. Isku aadi kuwan soo socda ee   eg muuqaalada adkayaasha.

              B.   I

1.   Hal Liin macaan ah   B.   Malaasan

2.   Gorof   T.   Biriisim

3.   Sanduuq   J.   Saddex-jibbaarane

4.   Dice (riyo kadhalis)   X.   Dhululubo

5.   Geed qoyan oo laqoray dhinac   Kh.   Toobin

6.   Geed aan laqorin inta lasoo   D.   Bayramiidh

       gooyey oo tib ah (kalah)   Yadiisu yahay 3 waji

2. Meelaha banana qaabka ku habboon ku buuxi kuwan soo socda.

        b.   Gobays waxa uu leeyahay qaabka-----------------------------

        t.   Looxaantu waxay leedahay qaabka-------------------------------

        j.   Kubada cagta qaabkeedu waa---------------------------

        x.   saqafka sare ee aqal soomaaliga waxa lagu dabool ay waxa uu leeyahay qaabka----------

Waad.u diyaar garoobi kartaa casharka xiga adigoo ka duulaya jawaabaha su'aalaha kore kaaga soo
baxa ay ardaydu soo jawaabeen.

Jawaabaha layliska 5.4.B

1.   Isfeer   2.   dhululubo   3.   T, r iyo ah   4.   T, r iyo ah
5.   b, sh   6.   J, s   7.   Kh   8.   Isfeer

9.   b)   biriisim cidhifxadiisa oo dhani isma wada leeka. Saddex jibbaaranaha cidhifyadiisa oo
              dhani way iswada le'eg yihiin.

       t)   biraamid salkiisu iyo wajiadiisu waa geesoolayaal hasa yeeshee toobinta salkeedu iyo
              dul keeduba ma laha geesoole.

       j)   dhulubadu laba sal ayay leedahay toobintuse hal sal ayay leedahay.

       x)   biriisimku wuxuu lee yahay laba sal biraamidku se wuxuu lee yanay hal sal.

10. b.   Wajiyadoodu ee dhinacyadu waa afar-dhinaclayaal.

       t.   biroamedlka iyo toobintu waxay leeyihiin gees.

       j.   dhululubada iyo toobintu waxay leeyihiin sal goob ah.

       x.   toobinta iyo isfeerku ma laha dul fidsan.

5.4.2 Samaynta Moodheelada Adkeyaasha Fudud

U ekeyaal (models) hore diyaariyey oo ah muuqaalada adkey aashd si aad u isticmaasho kaabayaal
noqon kara barista casharkan ayaad soo bandhigi kartaa casharka.

Waxaana habboon barshada casharkan in la adeegsado kaartoon adag oo dhinacyadisu yahay 16sm iyo 16sm, mastarad, qalin qori iyo maqas.

Intaa kadib buugga ardaayga bogga 96 shaqada 5.4.T ee kuxusan habka loogu qeexay buugga ardayga inta looga shaqeeyo oo latuso ardayda si ay iyaaguna iyagoo shaqsi ama koo xo ah aad ugu hawl galisaa.

Kaartaanka sida labjibbaarayaasha oo kale lookala qaybiyey inta laka gooyo meesha dhibco-dhibcaha leh xaglaha geesaha ah xamag la iskugu dhajjujo qaabka ay soo baxayso oo ah wareeg isku mid ah dhinacyada dhiska sare iyo hoos, boggagga ama dhinacyada hoos iyo kor, bidix iyo midig inay yihiin labajibbaarayaal iswada le'eg ayaa haddaba lagaaga baahan yahay in ay ardayda le'eg ayaa haddaba lagaaga baahan yahay in ay ardaudu afahmaan u ekaha noocah ah ee soo baxay in uu yahay cube.

Hadddaba u ekaha(model) cube ka habka loo sameeyay 12 sm iyo 16sm oo kaartoon ah ama waxkale oo buuran oo ah waraaq inta 12 afar gees oo iswada le'eg si sax ah loo goo-gooyo ayaad u bar-bari kartaa ardyada in cube ka sii fiican laga sam-ayn karo.

Haddaba intaa dib ardaydu layliska 5.4.T su'aalaha ku xusan sida ku habboon kaabayaashoodu oo horay u diyaar ah midna shaqo fasal iyagoo is caawinaya ku hawl- gali siday kolba kuugu suuro gasho iyagoo kooxo ah ama shaqsi ah simarkaa ay kuuna tusaan jawaabtood. Su'su'aasha kalena ku hawl- gali iyoagoo u qaadanaya shaqo guri si farsamo gacmeed ay u keenaan markaa. Kadib u ekaha cube-ka ay soo sameeyeen ku qiimee.

Intaa kadib buugga ardayga bogga 97 shaqada 5.4.J ee k u xusan ardayda adoo ka qayb qalinaya pirismka ah 16sm iyo 20sm ah kas amee kaartoon. habka loosamaynayo waxaa uu kaga duwan yahay cube-ka kaliya kaartoonakaas oo lakala goo –gooyay. meelaha ay boggaggiisu (dhinaayadiisa) is kaga kulmaam dhreeka ay leeyihn oo lakala goo – gooyay. Meelaha ay boggaggiisu(dhinaayadiisa) is kaga kulmaan dhereka ay leeyihiin oo si isle'eg loo qiyaaso.

Ardaydu marka ay ka wada tahadaan iyagoo kuraastoo- da fadhiyo ayaa haboon iay uga wada shaqeeyaan. Haddaba siya bar- bartaan samaynta 5.4J. su'aalaha ku xusan siiaasha koowaad shaqo fasal usii adigoo ka eegaya sida ay uga shaqaynayaan kana sax meelaha ay ka qaldamaan. Ardaydu illaa ay ka fahmayaan sida ay samayntu ukala horrayso caawimaad sii. Hadddaba halkii loo baahnaa markay gaadhaan ardaydu layliskan siiasha koowaad eed shaqo fasal usiisay mooyee inta kale usii ama u dir shaqo guri si ay usoo sameeyaan kadib marka ay keenaan waxaad ka ogaan kartaa inay gaadheen meeshii looga baahnaa.

T. Kasamaynta Geedo (qoryo) u'ekeyaasha piriiska

Casharkan shaqooyinka kooxda waxaa loo baahan yahay inay diyaar ahaan geedo ama qoryo ku habboon iyo xadhko yaryar ama gundhiska kabaha lagu tolo ama dun si ay u suuro gasho samaynta piriismka. Sida buugga ardayga ku xusan anal lagu qeexay marka hore labo –labo nooc oo saddex geeslayaal oo qoryo ah ayaa cidhifyada la iska xidho diyaar sanaysaa. Sida muuqaalka ka muuqata saddex geeslayaasha itay kor iyo hoos yihiin ayery haddana saddex geed oo kale ayaa lagu xidhxidhay si uu u'ekehu(model- ku) iskii isku taago sidan inta loosameeyo ku dhiiri gali

arday inay loo sameey ay waxay yihiin u'ekeyaal piriism. Islamarkaana loo sameey ay waxay yihiin u'ekeyaakl piriism. Islamarkaana waxaaloo baahan yahay inay ardaydu ku xisaab tamaam inla adeegs aday 9 geed (qoryo) hadddaba ardaydu ay fahmeen in dhiska saddex geeslayaasha ee ah piriism kadib waxaad wargalinay saa in ay samayn karaan u'ekeyaalpirism oo ah sal afar geesle, salshan geesle IWm. Haddaba sida tan iyoadoo ah shaqadu alaabha kaabayasha ah ee aad horey u diy aar atay adigoo adeegsanay layliska 5.4x qaybtiisa hore ugaga shaqee fasqee fasalka dhexdiisa waxyaalaha khala-daaka ahna adigoo ka toosinaya qaybaha kalena ugu dir shaqo guri kuna dhiiri gali sidii ay usoo samaya lahaayeen.

J. samaynata u'ekeyaasha (models) tuuBBooyinka

Shaqada kooxda ah ee 5.4 x sida ku diyaarsan haddii aad helikart waraaqad saafi ah ama qalabkale oo duubmi kara cidhifkisa iyo kazoo horjeedkiisa la iaku xidhi karo intaaad diyaar sato ayaad iskugu dhajinaysaa kollo(xamag) markaa tuubbada soo baxday itaad qiyaasto ayaad affka kaga dhajinaysaa laba gooboos oo afafka le'eg.Qaabka noocan ah shayga u diyaarsan waxaan odhan kartnaa u'eke(model) dhululubo. Adigoo adeegs Anaya alaabo lamid ah layliska 5.4.kh shaqooyinka ku xusan ku hawl-gali ardaydu inay ka shaqooy inka ku xusan ku hawl- gali ardaydu inay ka shaqeeyaan kadibna ku tusaan.

Sidaa si lamid ah u'ekeyaasha bayraamid iyo toobin siya usameeyaan waxyaalaha loo baahan yahay tusaale ahaan kaartoon, warqad, qalinka furkiisa IWm adigoo u diyaarinaya ardayda ukala qaybi sikooxo ahkuna hawl- gali si ay uga shaqeeyaan taageerada kuhabboona sii adigoo kormeeraya.

Habka noocan ah ee u diyaar garowga u'ekeyaasha ardaydu waxay noqon karaan kuwo kala heer sarreeya. Li'ekeyaasha samayntooda ardayda heerka sare ah waxaad ku kala baahinaysaa kooxaha si ay taageero u siiyaan ardyada kale. Kuwo heerka hoose ahna inaad si gaar ah taageero aad u Biiso ay habboon.

Haddaba siaad u xaqiijiso muhumada casharkan habkan qiimaynta ah ee soo socota ayaa habboon inaad fuliso ama adeegsato.

Tabaha qiimaynta

Su'aalahan soo socda oo kale adigoo diyaarsanaya ayaad qiimayn ku samayn kartaa.

1. Hal piriism inaad ka samayso qoryo)geedo) dhuudhuuban
        B.waxyaalaha loo baahan yahay sheega tiriya.
        T. Faah faahiya qaabka ay u kala horreyaan samayn tiisa.

2. Samaynta u'ekeyaasha(models) sida biriism, toobin, dhululubada, Biraamid iyo saddex jibbaarane idinka oo mid ka dooranaya soo sameeya oo keena. Hawl-galka soo socda waad u diyaar garowi kartaa adigoo ku sallaynaya ama kaduulay jawaabta kaaga soo baxda qiimaynta ardayga.

CUTUBKA 6aad WAQTIGA (AMINTA)

HORDHAC

Fasalkii saddexaad ardaydu waxay ku soo barteen halbeegyada wakhtiga ee kala duwan. Tusaale ahaan, sanad, bil, taddobaad, maalin, saacad iyo ilbiriqsi inay yihiin noocyada lagu cabbiro wakhtiga la ogaysiiyo oo qudha ma'aha ee waa in xidhiidhka ka dhexeeya halbeegyada wakhtiga si faah-faahsan ayey u soo barteen, cutubakan barista cabbirka ilbiriqsi hal-hal sida loogu badolo halbeegyada kale oo ay dheertahay saacadu. Daqiiqadaha iyo ilbiriqsiga xidhiidhka ka dhexeeya waa in aad siisaa fiiro gaar ah cabiraada hal-halbeeg oo loo badalo halbeegyada kale ee wakhtiga iyo isugeynta halbeegyada wakhtiga, kalagoynta halbeegyada wakhtiga midba midka kale iyada oo la is barbardhigo waa in aad ku hogaamisa ardayda.

Ujeedooyinka

Cutubkan marka uu dhamaado ardaydu waxay awoodi doonaan in ay:-

- saacada, daqiiqadaha, iyo ilbiriqsi xidhiidhka kadhexeeya
- cabbiraada halbeegyada wakhtiga oo loobadalo halbeegyada kale
- isbarbardhigaan cabbiraadda halbeegyada wakhtiga
- isugeeyaan cabbiraada halbeegyada wakhtiga

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Kaabayaasha barista

Cutubkan baabayaasha baris-barasho ee uu u baahan yahay waa ku wa soosocda

- *saacada gacanta; saacada guriga amaa gidaarka*
- *caag amaa warqad cad oo wayn siwayn loogu muujiyey moodheel saacado ah*
- *shaxan muujinaya halbeegyada wakhtiga iyo xidhiidhka ka dhexeeya halbeegyada wakhtiga (inta uu cutubku dhamaanayo waa in uu gidaarka ku dhajisanaado) ah*

6.1. SAACADA, DAQIIQADAHA IYO ILBIRIQSIGA

Ujeedooyinka

Cutub-hoosaadkani marka uu dhamaado ardaydu waxay awoodi doonaan inay

- *u sharaxaan sakondhiga halbeega wakhtiga a haan*
- *sharaxaan xidhiidhka kadhexeeya saacada, daqiiqadaha iyo ilbiriqsiga*

Ereyada muhiimka ah, saacada, daqiiqo iyo ilbiriqsi

Hordhac

cutub-hoosaadkan wuxuu ahmiyad gooniya siinayaa sakondhiga in loo soo ban dhigo in uu kamid yahay halbeegyada wakhtiga is lamarkaana, ilbirigsiga ,daqiiqada iyo saacada waa in loo sooban dhigaa ardayda xidhiidhka ka dhexeeya oo cad.

Hawlgalda Baris barasho

Wax-barashadii fasalka saddexaad ardayda iyaga oo lawaydiinayo su`aalo ku saabsan islamarkaana ay ardaydu ka Jawaabayaan ayay ku bilaabayaan, Hawlgalka 6.1 --- iyaga oo koox-koox ahaan uga shaqeynaya, sanad, bil, toddobaad, maalin, saacad iyo daqiiqo ee cabbiraadda halbeegyada wakhtiga aan soo xusnay waa in ay sheegaan, saddexda falaadhood ee saacada gidaarka iyada oo la eegayo daqiiqadaha iyo ilbiriqsiga falaadhaha ay cabbir ahaan u taagan in ay kala gartaan ayey kaa caawinaysaa, saacada, daqiiqada iyo ilbiriqsi falaadhaha utaagan cabbirkooda marka aad hubsatid in ay kala sooci karaan. Hawlgalka 6.1. koox-koox ahaan in ay ka shaqeeyaa iyaga oo ka doodaya ku dhiirigali, kooxdu jawaabta ay islagarteen waxaa fiican in uu arday waliba soo jeediyo isaga oo adeegsanay saacada gidaarka isaga oo hor taagan ardayda falaadha cabiiraysa sakondhiga halkii wareeg ee buuxa waa 60 ilbiriqsi amaa hal daqiiqo.

Islamarkaana falaadha cabbirraysa daqiiqadaha iyaduna marka ay hal wareey oo buuxa ay wareegto waa 60 daqiiqo ama hal saac lagu magacaabo mar labaad in aad fahamsiiso ardayda ayaa loo baahan yahay, waxaa loo baahan yahay in ardayda aad ku dhiirigaliso in ay ku soo koobaan shax taas oo suuro galinaysa in ay sifiican ufahmaan, saacada, daqiiqada iyo ilbiriqsiga xidhiidhka ka dhaxeeya in ay ardaydu sidii loo baahnaa ay u fahmaan waa in aad adeegsataa qiimayn ahaana su'aalo dheerin ah oo kala duwan, adiga oo uga siigudbaya, maalin wakhtigta ka bilaabma halkee

ilaa halkee in uu noqdo weeyaan? islamarkaana maalintu waa imisa saacadood? iyada oo ay tahay daqiiqo ahaana? adiga oo kudhaxdaraya in ay awoodaan waa in aad adeegsataa habab kala duwan

Ugu dambayna maalinta, saacada, daqiiqadaha iyo ilbiriqsi xidhiidhka ka dhexeeya sida soo socota oo kale adiga oo ka bilaabaya kawayn oo ku qoraya warqad adag ama kartoon kadibna gidaarka la sudho ilaa inta uu dhamaanayo cashirku in uu sudhnaado way fiican tahay.

> 1 Daqiiqo = 60 ilbiriqsi
>
> 1 saac = 60 daqiiqo = 3600 ilbiriqsi
>
> 1 maalin = 24 saac = 1440 daqiiqo

Jawaabaha hawlgalka 6.1b

1. Sanad, bil, toddobaad, maalin, saacad iyo daqiiqo,
2. b. sanad   t. bil   j. boddobaad   x. saacad
3. b. saddexdooda ka aadka ugaaban
    j.   ka ugu dheer ee ugu dagdaga badan ee lagu dhaqdhaqaaqo waa ka tiriya sakondhiga

Jawaabaha Hawlgalka 6.1

 b)   5 daqiiqo   t) 60   j) 1   x) 1

 kh)   60   d) 12   v) badh   s) 24

 sh) 1 daqiiqo = 60 ilbidhiqsi 1 saac = 60 daqiiqo

Taabaha qiimaynta

Marka aan ka fikirno qiimaynta waxaynu soo xasuusanaynaa ardayda waxyaabaha laga filaayo in ay awoodaan ee ku qoran cutub-hoosaadka hoostiisa. Iyada oo laga shaqoynayo saacad, daqiiqo iyo sakondhi in ay yihiin halbeegyada wakhtiga lagu cabbiro odhaah ahaan in ay uga jawaabaan waa in aad waydiisaa.

Adega oo adeegsanaya saacada gidaarka waa in ay kala soocaan saddexdooda iyaga oo ku tusaya waa in aad falaadha tilmaaamaysa ilbirqsi marka ay wareegto hal wareeg oo buuxa maxaa loo lajeedaa? falaadha tilmaamaysa daqiiqadaha marka ay wareegto hal wareeg oo buuxa imisa saac ayay noqotay? imisa maalmood ayay noqotay?

Maalin, saacad, daqiiqo iyo sakondhi ahaan xidhiidhka ka dhexeeya hadal ahaan ku sheega. Diyaariya shaxan tilmaamaya xidhiidhkooda, ------ adiga oo soo bandhigaya su'aalo inay fahmeen iyo inkale cutub-hoosaadka qiimayn ahaan islamarkaana aad u qadanayso qiimayn bilaw ah waxaa loo baahan yahay talaabada ku haboon ee kuxigta in aad ku dhaqaaqdo.

6.2 HALBEEGYADA CABBIRADA SAACADAHA.

Waqtiga loo qoondeeyey waa (3 xiso)

Ujeedooyinka ardaydu kadib waxay awoodi doonaan in ay

- ubadalaan halbeegyada waawayn ee wakhtiga halbeegyada yaryar
- ubadalaan halbeegyada yar yar ee waktiga halbeegyada waawayn
- isugeeyaan halbeegyada wakhtiga
- kala gooyaan halbeegyada wakhtiga

Eereyada muhiimka ah:-

cabbiraadda halbeegyada waqtiga ee waa wayn,

cabbiraadda halbeegyada waqtiga ee yaryar

Hordhac

horay sida aan ku soo sheegnay ardaydu saacad, daqiiqo iyo sakondhi way soo barteen, xidhiidh koodana waynu soo aragnay, cutub-hoosadkana cabhiraada halbeegyadan wakhtiga oo loo badalayo kuway halbeegayar

iyo halbeega yar oo loo badalayo halbeeg wayn sida ay la isugu badalo ayaad ku hogaaminaysaa, cabbiraadda halbeegyada wakhtiga isugeyntooda iyo kala goyntoodaba cutub hoosaadkana luga daray oo la soo bandhigayaa.

Hawlaha barisbarasho

6.2.2. Halbbeega Wayn Oo Loo Badalo Cabbirka Halbeeg Yar Ee Wakhtiga

Cinwaanka 6.2.1. marka aad bilawdiin cabbirka halbeegyada wakhtiga oo loo badalayo halbeega wakhtiga ee ugu yar

Ardaydu waa in ay u fiirsadaan, 1 maalin waa 24 saac marka layidhaa waa maalin oo loobadalay sacad ahaan si la mid ah daqiiqo waa 60 ilbiriqsi marka laleeyahay waa daqiiqada oo loo badalay ilbirqsi ahaan in ay awoodeen ayay tilmaamaysaa, faahfaahiintan

Marka aad usheegtaan kadib si toos ah hawlgalka 6.2b ardaydu iyaga oo islafadhida ay ka doodaan in ay ka shaqeeyaan waa in lafaraa.

b. haddii 1 saac ay tahay 60 daqiiqo, badhkeed waa imisa daqiiqo?

t. rubuc saac amaa 1 saac oo loo qeybiyey 4 waa imisa daqiiqo?

j. haddii hal maalin ay tahay 24 saac maalin badhkeed waa imisa saac?

Si lamid ah sidan hawlgalka 6.2.b. in ay uga shaqeeyaan ku dhiirigali kooxaha marka aad ka ururiso jawaabahooda kadib adigu jawaab celin ilaa furfiristooda waa in aad siisaa.

Jawaabaha hawlgalka 6.2b.

b. 30 daqiiqo   t. 15 daqiiqo   j. 12 saac

iyada oo la siiwadayo buugga ardayga tusaale 3aad ee lagu xusay ardayda si wada jir ah su'aal iyo jawaab dhaan ilaa furfuristeeda waa in aad tustaa.

Tusaale 13 daqiiqo marka loo badalayo ilbidhiqsi ahaan

1 daqiiqo = 6 ilbidhiqsi maadaama uu yahay

13 daqiiqo = 13 meelood oo min 60 ilbiriqsi

= 12 × 60 ilbirqsi

= 780 ilbiriqsi

> Sidaas awgeed daqiiqada marka loo badalayo ilbidhiqsi waa daqiiqadaha lagu siiyey oo lagu dhuftay 60, si lamid ah saacada marka loo badalayo daqiiqado waa saacadaha lagu siiyey oo lagu dhuftay 60, maalin marka loo badalayo saacadona waa maadhin oo lagu dhuftay 24

Kuwan si ay u xasuustaan si iskumid ah in aad ugu sheegto way ku haboontahay, iyada oo laga siigudbayo ardayda koox-koox fasalka dhaxdiisa iyaga oo ah shaqo − kooxeedka 6.26 in ay ka shaqeeyaan waa lakaraa. Kooxuhu shaqadooda marka ay dhameeyaan kadib qaarkamid ah iyaga oo istaagaya waa in ay u faahfaahiyaan saxiibadood qaabka ay ugu shaqeeyeen, saaxiibadood waa in ay qiimeeyaan in ay tahay sax iyo in kale, ugu dambayna si aad u tasto qaabka looga shaqeeyo layliska 6.2b. waad kartaa in aad ugudubto.

Jawaabaha shaqo-kooxeedka 62b.

b.   2 maalmood × 24 saac = 48 saac

48 saac = 8 × 60 daqiiqo = 2880 daqiiqo

Sidaasdartaeed 2 maalmood = 2880 daqiiqo

t.   12 saac = 12 × 60 daqiiqo = 720 daqiiqo

720 daqiiqo = 720 × 60 sakondhi = 43,200 ilbiriqsi sidaas darteed 12 saac
= 43,200 sakondhi

j.   maalin rubuceed = 1 maalin ÷ 4 = 26 saac ÷ 4 = 6 saac

6 saac = 6 × 60 daqiiqo = 360 daqiiqo

360 daqiiqo = 360 × 60 sakondhi = 21,600 ilbirqsi

Layliska 6,2b arday waliba waa in uu shaqsi ahaantii uga shaqeeyaa, ka horey u dhameeya waa in aad u saxdo, haddii ayna saacadu ku filnayn shaqo guri ahaan usii. Dhamaan ardayda waa in aad u

saxdaa buugtooda markay keenaan, adigo oo eegaya ardayda dhibta qabta (fahmin) waa in aad gooni ahaan u caawisaa, laakiin ardayda fahmada fiican leh in aad buugtooda ugu qorto laylis dheeri ah waad kartaa amaa waxaad kartaa in ay faham siiyaan saaxiibadooda kale

Jawaabaha layliska 6.2b

1. b, 420   t, 1020   j, 4200
2. b, 180   t, 315   j, 725
3. b, 240
                   t, 366   j, 21,606

4. b. 24 saac = 24 × 60 daqiiqo = 1440 daqiiqo 1440 daqiiqo = 140 × 60 ilbidhiqsi = 86,00 sakondhi

    t, 7 maalmood = 7 × 24 saac = 168 saac

    168 saac = 168 × 60 daqiiqo = 10080 daqiiqo

    10080 daqiiqo = 10080 × 60 sakondhi= 60800 ilbiriqsi

    j. 2 maalmood = 2×24 saac = 48 saac 48 saac = 48 × 60 daqiiqo = 2880 daqiiqo

6.2.2. Halbeega yar oo loo badalo cabbirka halbeeg wayn ee wakhtiga

Heerkan ardaydu 60 ilbiriqsi in uu yahay 1 daqiiqo islamarkaana 60 daqiiqo ay tahay 1 saac ayey ogaanayaan, sidaas darteed in sakondhiga loobadalo daqiiqo, daqiiqadaha loo badalayo saacad waa la awoodaa, sidan hordhac ahaan marka aad usoo bandhigto kadib hawlgalka 6.2t. ardaydu miis kooda koox-koox ahaan in ay uga shaqeeyaan waa in aad wakhti siisaa, hawlgalka shaqadiisa tusaale ahaan 60 ilbiriqsi = 1 daqiiqo,

60 daqiiqo = 1 saac xidhiidhyadan waa in ay adeegsadaan heerkan tirooyinka idil ee leh laba god in loo qeybiyo wali maadaama ayna baran 180 ÷ 60 = 3 sidaasdarteed 180 ilbiriqsi waa 3 daqiiqo adiga oo leh in aad caawiso loo ma baahna, adiga oo aan hakinayn hababka looga shaqeynayo ee soo sacda in ay u adeegsadaan waa in aad ku dhiirigalisaa,

60 sakondhi= 1 daqiiqo maadaama ay tahay

180 sakondhi = (60 + 60 + 60) ilbiriqsi

$$= 60 \text{ ilbirqsi} + 60 \text{ ilbiriqsi} + 60 \text{ ilbiriqsi}$$

$$= 1 \text{ daqiiqo} + 1 \text{ daqiiqo} + 1 \text{ daqooqo}$$

$$= 3 \text{ daqiiqo}$$

Si lamid ah 60 daqiiqo = 1 saac maadaam aytahay

180 daqiiqo = 60 daqiiqo + 60 daqiiqo + 60 daqiiqo

$$= 3 × 60 \text{ daqiiqo}$$

$$= 3 × 1 \text{ saac}$$

$$= 3 \text{ saac}$$

Hawlgalkan kadib sida ay u kala mudan yihiin tusaalayaasha 4,5, iyo 6 ardayda si wada jir ah in looga shaqeeyo waa la sameeyaa, iyada oo looga sii gudbayo shaqo-kooxeed 6.2t. ahaan u sii kooxaha jawaabahooda u sax islamarkaana kooxda badisay waa in aad u sheegtaa,

Jawaabaha shaqo-kooxeedka 6.2t

b. 5   t. 2   j. 1 maalin iyo badh

iyda oo halkaa laga siiwadayo layliska 6.2t u sii shaqo guri ahaan, dhamaan buugta ardayda inta aad ka ururisid usax. Waa in laga qabto dhibco lagu dariyo dhibaca simisterka hadii lasameeyo ardayda ayey dhirigalin noqona in ay ka shaqeeyaan.

Jawaabaha layliska 6.2t

1.   b. 5   t.   20   j.   1100
2.   b. 4   t. 10 saac iyo rubuc   j. 21
3.   b. 30 ilbirqsi = 60 sakandi $\div$ 2 = 1 daqiiqo $\div$ 2 = daqiiqo badhkeed

   t. 90 daqiiqo = 60 daqiiqo + 30 daqiiqo = 1 saac + saacad badhkeed = 1 saac iyo badh

   j. 3000 daqiiqo = 50 $\times$ 60 daqiiqo = 50 $\times$ 1 saac = = 50 saac

   x. 320 daqiiqo = 72 $\times$ 60 daqiiqo = 72 $\times$ 1 saac = 72 saac

6.2.3. Isu gaynta iyo kala goynta halbeegyada waqtiga

Cutub-hoosaadkan wuxuu muhiimada siinayaa isugaynta iyo kala goynta saacadaha, daqiiqadaha iyo sakandhiyada oo uu ka kooban yahay, waxbarashadana waxaad ku bilaabi kartaa hawlgalka 6.2j, Ardaydu iyaga oo inta miisku wada fadhida ay ka shaqeeyaan waa in aad wakhti siisaa, ardayda kalena kooxaha jawaabahoodu inay sax tahay ha qiimeeyaan, ugu dambaysna qaabka looga shaqeeyo dhamaan ardayda sida soo socota waa in aad u fahamsiisaa,

Wakhtiga loo qoondeeyay imtixaanka maadada ingiriisiga 1saac iyo 25 daqiiqo weeyaan

Wakhtiga loo qoondeeyey imtixaanka maadada xisaabta 90 daqiiqo = 1 saac iyo 30 daqiiqo weeyaan.

Sidaasdarteed 1 saac iyo 25 daqiiqo

   + 1 saac iyo 30daqiiqo
   _____
        2saac iyo 55 daqiiqo

b)   wadarta wakhtiga lagu siiyey labada imtixaan waa 2 saac iyo 55 daqiiqo

t)   halka maadada ugu wakhtiga dheer lasiiyeey ay tahay maadada xisaabta taas oo ay 5 daqiiqo ay kabadan tahay maadada ingiriisiga.

way ka basantahay sababta oo ah $1\,saac\,iyo\,30\,daqiiqo$

$$-1\,saac\,iyo\,25\,daqiiqo$$

$$0\,saac\,iyo\,05\,daqiiqo$$

Tusaalayaashan oo kale ee buugga ardayga lagu siiyey waa in aad kadhaadhicisaa adiga oo ugu celeelinaya, halbeegyada ay isugeynayaan haddii ayna ahayn halbeegyo iskumid ah halbeegyada kala duwan tusaale ahaan. Isugeynta saacadaha iyo daqiiqadah waa in aad marka hore daqiiqadaha aad u badashaa saacad ama saacada aad u badashaa daqiiqado haddii kale ma awoodaysaan in aad isugaysaan holbeegyada. Halbeegyo Isku mid ah ayaa la iidin ka baahan yahay.

Gabagabadana hawlgalka 6.2j shaqo fasal amaa shaqo-guri waa in aad u siisaa,

Jawaabaha layliska

1.   b, 3 saac iyo 25 daqiiqo   b, 9 saac iyo 5 daqiiqo

    j, 9 saac iyo 10 daqiiqo

2.   5:00 saac
3.   5:15 maalin nomo
4.   Ciyaarta kubada cagta waxay bilawmatay 8:30 qeyta horena waaxay dhamaatay 9:15 qeybtii labaad waxay labilaabay 15 daqiiqo ee nasashada kadib 10:50 oo ah 11 saac oo toban la,

Ardaydu marka ay isugeynayaa halbeegyada daqiiqadaha 60 iyo wixii kabadan marka ay noqoto in ay u badalaan saacad ayaa looga bahan yahay sidaas si lamid ah ilbiriqsi 60 iyo wixii kabadan in ay u badalaan daqiiqado ayaa looga baahan yahay waa in ay ka daxadaraan ayaa lagaaga baahan yahay

Kala goynta

Marka aan kalagoynayno halbeegyadan, qaababkii aan u adeegsanay isugeynta waynu adeegsan karnaa, saacada ooloo badalayo saacad, daqiiqadaha oo loo badalayo daqiiqo, sakondhi oo loo badalayo sakandhi ay yihiin ku wa la kala goynayo ee halbeegyada wakhtiga ee kala duwan si aynu u kala goyno sida aan u adeegsanay isugeynta oo kale waa in aad u adeegsataa dhamaantood in aad u badasho halbeeg is ku mid ah ayaa lagaaga baahan yahay, takale marka aad kala goynaysaan halbeegyada howsha in aad ka taxadartaan sida ay u haboontahay waa kala goynta ay kajirto amaahasho, 1 saac haddii aad soo amaahataan, waxaad soo amaahateen 60 daqiiqo ayaa loola jeedaa, tusaale, 27 daqiiqo iyo 32 ilbiriqsi marka laga gooyo 26 daqiiqo iyo 40 sakondhi sida soo socota ayaad uga shaqeyn karta

$$27:32 \;\Rightarrow\; 26:92$$

$$\underline{-26:42} \quad \underline{26:40}$$

$$00:52$$

32 da ilbiriqsi oo laga gooyey 42 sakondhi maadaama ayna suuro gal ahayn 27 daqiiqo 1 saqiiqo amaa 60 ilbiriqsi ka soo amaahda 32 ka sakondhi ku dar, sidaas darteed 50 ilbiriqsi oo kaliya ayaa soo hadhaya.

Taabaha qiimaynta

Ujeedooyinka Cutub-hoosaadka 6.2 ardayda waxaa laga filayaa in ay awoodi doonaan in ay:-

- u badalaan halbeegyada wakhtiga midba midka kale iyo
- isugeeyaan amaa ay kala goyaan halbeegyada wakhtiga

Sidaas awgeed ujeedooyinka si loo adeegsado in la qiimeeyo su'aalo kala duwan, laylisyo iyo hawlgolyo in la siiyo ay a woodaan in ay halbeeg u badalaan halbeeg kale iyo in ayna awoodin saas oo ay tahayna halbeegyada iskumidka ah iyo kuwa kala duwan in ay isugeeyaan islamarkaana midba midka kale ay kagoyaan in ay awoodaan iyo in ayna awoodin in la qiimeeyo way haboon tahay.

Jawaabaha layliska 6.2.x

1.   4   2.   9
3.   50sakondhi ayuu kudaray
4.   25
5.   B.   2 saac iyo 2 daqiiqo
        t.   45 daqiiqo
        j.   6:10
        x.   50 daqiiqo
        kh. 55 daqiiqo

6.3. ISBARABADHIGA HALBEEGYADA WAKHTIGA

Wakhtiga loo qaandeyay waa (2 xiiso)

Ujeedoyinka

marka uu dhamaado cutub hoosaadkani ardaydu waxay awoodi doonaan in ay

- isbarbardhigaan halbeegyada wakhtiyada kala duwan
- weedh-xisaabeedyada la xidhiidha halbeegyada wakhtiga furfuraan isbarbardhigyada

Ereyada muhiimka ah   Isbabardhig, furfurista weedh-xisaabeedyada

Hordhac

cutub-hoosaadkan wuxuu muhiimada siinayaa isbarbardhiga iyo kala hormarinta halbeegyada is ku midka ah ama kuwa kala duwan ayuu ku saabsan yahay.

Hawlaha baris barasho

Waxbarashada waxa aad ku bilaabi kartaa layliska 6:3b sida wakhtiyada kale dhamaan ardaydu sida ay isu ogol yihiin koox-koox inta ay noqdaan hawlgalka haka shaqeeyaan, marka ay dhameeyaa jawaabahooda iyaga oo gacanta taagay jawaabahooda hasheegaa,

Ugu dambayna sida soo socota oo kale sixitaankii ugu dambeeyey waad kartaa in aad siiso

Imtixaanka maadada soomaliga 1 saac iyo 5 daqiiqo imtixaan ka maadada ingiriisiga loo daqiiqo = 60 daqiiqo + 4 daqiiqo = 1 saac iyo 40 daqiiqo

Sidaas darteed labada imtixaan ka wakhtiga badan la siiyey waa ingiriisiga, oo ah 1 saac iyo 45 daqiiqo > 100 daqiiqo

Tusaalayaashan sidan oo kale ah ee lagugu siidyey buuga ardayga su'aal iyo jawaab ahaan waa in aad uga shaqeysaa,

Halkaas adiga oo kasii wadaya shaqo-kooxeedka 6:36 inta ay ka doodaan si ay uga jawaabaan waa in aad samaysaa kolkaana layliska 6.3 dhamaan ardaydu waa in ay kaga shaqeeyaan buugtooda kadibna aad u saxdaa buuggooda, shaqada ay ka shaqeeyeen dhibcaha laga qabanayo waa in ay noqdaan qiimo lagu darayo dhibcahooda guud mar mar sidan oo kale kuga shaqeeyaan fasalka amaa shaqo guri waa in qiimo la siiyo ardaydeena mar walba way isku dayayaan islamarkaana inay ka shaqeeyaan way ku dhiirigalinaysaa.

Taabaha qiimaynta

Adiga oo siinaya halbeegyada wakhtiga oo kala duduwan waa in ay isbarbardhigaan si shaqsi ahaan ah, koox-koox, shaqo-fasal ahaan, shaqo-guri ahaan in ay iskugu dayaan waa in aad waydiisaa.

In ay kamid noqdaan weedh-xisaabeedyada kusaabsan ee laxidhindha halbeegyada wakhtiga in ay ku daraan ku waani

Jawaabaha layliska 6.3

1.   b) abaal marnitii ta heshay waa ardo
        t) tabdi udhacday ee dhamaysay waa safiya
        j) 2:05, 2:05:45 2:08
2.   b) Sahra   t) Nuur   j) 180 daqiiqo, 150 daqiiqo; 120 daqiiqo
3.   b) 600 daqiiqo t)6000 ilbiriqsi   j) 800 daqiiqo
4.   b) 5000 ilbiriqsi 90 daqiiqo, 1 saac iyo 35 daqiiqo
        t) 3200 ilbiriqsi 60 daqiiqo, 1 saac iyo 5 daqiiqo
        j) 420 daqiiqo = 25,200 ilbiriqsi = 7 saac

CUTUBKA 7aad URURINTA IYO HABAYNTA XOGAHA

HORDHAC

Wakhtiyadan dambe nolol maalmeedka maalinba maalinka xiga waxyaabaha kala duduwan oo aan diwaan galin kusamayno. Sixog ahaan ugu urursano faa'iildada ay leedahay aad ayey wakhtiyadan dambe u ballaadhantahay. Tusaale ahaan midhaha kala duduwan sida khudaarta noocyadeeda iyo qiimahooda amaba dugsiga ardayda kala duwan ee fasal walba ku jirta inta diwaan gashan ama intaan kusoo wareegno suuqa inagoo kaduulayna qiimaha aan suuqa kusoo aragnay si aan wax u gadanno ama ardayda si waxbarista ay ugu fududaato ayay inaga caawinysaa xogta aan ururinay.

Haddaba xog ururintu waxay inta ugu badan ku sallaysan tahay habaynta xogta la ururiyo iyadoo lagu xoojinaayo sanduuq tarjumo. Casharkan ujeedadiisa waa in ardayada lagaadhsiiyo xogta marka labaad samaynta ugu horrayda ururinta xogta marka labaad samaynta xogta baara giraafka iyo Raadinta celceliska tirooyinka idil oo iyadana lagu daray barashada cutubkan.

Ujeedooyinka

Cutubkan marka uu dhamaado ardaydu waxay awoodi doonaan in ay:-

- *habaynayaa xogta ay ururinayaan.*
- * ku muujiyaan xogta baar – giraaf*
- *macneeyaan xogta ay baar – giraafka ku muujiyeen.*
- * Raadiyaan celceliska tirooyinka idil ee illaa 4.*

Kaabayaasha Baris barasho

- Kaar ay ku sawiran yihiin noocyada xagta oo kadib lagu ururiyo.
- Shax ay ku muujisan yihiin sawiro kala duwan.
- Jaarti ama waraaqaha waa wayn oo lagu muujiyey giraafyo kala duwan.
- Waraaqaha waawayn ee sawirka ama jaartiga
- Tamaashiiro leh midabyo kala duwan

7.1 DHISIDDA (SAMAYNTA) GIRAAF LAYDIYEEDKA.

waqtiga loo qoondeeyey waa (3 xiso)

Ujeedooyinka

Cutubkan marka uu dhamaado ardaydu waxay awoodi doonaan in ay:-

❖   *habeeyaan xogta iyagoo ururinaya.*
❖   *Baar – giraaf samaynayaan iyagoo ku sallaynaya xogta.*

Ereyada gaarka ah: xog, Baar - giraaf

Hordhac

Cutub-hoosaadkan andaydu waxay ku baranayaan sida buugga ardayga sawirada ku sawiran iyagoo ku sallaynaya, macallinkoodu kaarasha kala duwan oo leh sawirada uu isagu horay diyaariyey iyo sida ay

Ku arkeen buugga ardayga waxyaabaha kala duwan ee ka muuqda buugga iyo sawirada uu ku tusay barahoodu kaarasha magacdooda iyo tirada ay yihiin iyagoo xog ahaan u ururinaya ayey ku qorayaan buuggooda qoraalka ah qiraal ahaan iyo xariiqyo (Jeexdin) kaas oo aay adeegsanayaa shax (sanduuq).

  In taa waxaa dheer cutub-hoosaadkan waxaa ardayda loogu diyaariyey. Xogta shaxda ama sanduuqa lagu muujiyey sidii ay baar-giraaf ahaan ugu muuijin lahaayeen.

Shaqooyinka baris barasho

Cutub-hoosaadkan wuxuu u qaybsan yahay laba qaybood. Waxay kala yihiin, ka koowaad ku diyaarinta shaxada ama sanduuqa kaarasha loo diyaariyey iyo sawirada,qoraalaada ka muuqda buugga ardayga qaabkii xogta shax ahaan loogu muujin lahaa. Qaybta labaadna xogtan shaxda lagu mujiyey kadib marka la ururiyo sidii ay baar – gitaaf ahaan loogu muujinlahaa.

7.1.1 Ururinta Xogta.

Ardaydu waxaa haboon in loo abuuro wax yaabo badan oo kacaawiya sidii ay awood ugu heli lahaayeen ururinta xagta fasalka dhexdiisa. Sidoo kale qaabka ugu horreeya sida ku xusan buugga ardayga xayawaano kala duduwan, alaabo kala duwan iyo waxyaabo kale oo muuqaalo iyo qoralo inta macalinkoodu u diyaariyo shaqo kadib ardayda waa inaad fahan siisaa sawirada iyo qoraalada iyagoo magacyadooda iyo tiradooda shaxda kugu buuxinaya si koox koox ah kadibna iyagoo kooxba kooxda kale ay is barbardhigayaa ayey ardayda kale ee fasalka ku fahamsiin karaan. Kacaawi ardayda inta ay buuggooda shax ama sanduuq ku buuxinaya jeexdino yar yar ama tiro ahaan. Kadib sidan oo kala sida ay isugu xigaan shaqooyinka xarfaha B illaa T waa inay kashaqeeyan. ugu dambayn lnta aynan kashaqaynin laylisyada si nakhtiin ah ama soo koobid ah ayaa loo baahan yahay in aad ogaato ardaydu inay fahmeen waxyaabaha ku habboon in ay adeegsadaan. Waana sidan inta aynan xogta ururin ka hor.

Koowaad – in ay sidaganaansho leh uga fiirsadaan ama akhriyaan waxyaalaha ay ururinayeen.

- Noocyada ay yihin iyo
- In looga baahan yahay inta ay kala yihiin.

Labaad inta kor ku xusan marka ay fuliyaan kadib

- Inay ku xafidaan xasuus qor
- Xasuus qorka ay haystaan waxaa looga baahan yahay in ku diwaan galiyaan shax ama sanduuq.

Jawaabaha Shaqada 7.11

b.

Xogta lasoo ururiyey muuqaalkooda	Tiradooda oo xariisima ah	Tiradooda oo astiro lugu qoray
Sawir shimbir	ЖЖ	5
Sawir a`ay	ЖЖ |||	8
Sawir diyaaradeed	ЖЖ		6

t.

	Sac sawirkii	Sawir faras	Sawir wan
Tiradooda oo jeexdino ah	||||			||
Tiradooda oo astiro ah	4	1	2

Taabaha Qiimaynta

Xilliga waxbarista iyo waxbarashada ardayda shaqooyinka ay qabanayaan waxyaabaha ay soo bandhigaan iyo marka ay buuggooda kaga shaqaynayaan qaabka ay shaxda ugu buuxinayaan waxyaabaha ay soo ururiyeen magacdooda iyo tiradooda in sidii haboonay ay ugu buuxinayeen ayaa adiga oo kudul wareegaya oo indha-indhaynaya shaqadooda islamarkaana aad kor ugu qaadi kartaa kartida iyo xirfada ardayga.

Jawaabaha layliska 7.1.1

Da'da	Sinjiga	
	Lab	Dhadig
10 jir	15	14
11 jir	13	10

Waxaa loo baahan yahay in aad ka caawiso sidii ay u diyaarin lahaayeen shax sidan oo kale ah.

7.1.2 Dhisida (Samaynta) Giraaf laydiyeed. (baar giraaf)

Ardaydu sida 7.1.1 "B" hoosteeda ay ngu sameeyeen Tiradeeda, shimbiraha iyo diyaarada ee loo adeegsaday shax saartaa ardaydu siday buuggooda qoraalka uga shaqeeyaan inay ku xisaabtami karaan. Ka caawi ardayda xogta ku xusan shaxda iyagoo ku sallaynaya si ay uga jawaabaan su'aalaha kadib markay arkaan xogta lagaga shaqeeyey baar- giraafka. Kaas oo jawaabaha ay siyaabooyin kala duduwan ay ugu jawaabi karaan ayaad kacaawinaysaa si ay u yeeshaan aragti guud oo ah sidan soo socota.

1.   Noocyada
2.   Tiradooda
3.   Saddex: xayawaano kala duduwan tiradooda oo lagu muujiyo Qaab dhererka laydiga ah.
4.   8: Taranta eyda
5.   5: Taranta shimbiraha
6.   Taranta shimbiraha
7.   Way kala duwan yihin dhererka laydiyada.

Sababta oo ah dhererkoodu waxa uu kala tilmaamayaa taranta noocyada xayawaanka maadaama ay taranta xayawaanku kala duwan tahay laakiin kumuujinta baar- giraafka dhexdiisa is ku qaab ayaa loogu caddayn.

8.   Fogaanta u kala dhaxaysa laydiyada makala duwana.
9.   Xariiqa joogga ah tirooyinka ku qoran mar walba waa inay isle ekaadaan.

Ugu dambayn ardaydu su'aalaha ay kuwaydii yaan waa in aad ka gudoontaa oo aad wada tashataan fikirka ka soo baxa .Baar-giraaf ereyga ah oo ah erey gaar ah ufiirso buugga ardayga bogga 111 in ay ku sheegaan ereyo ama weedho ay iyagu is kood ula baxeen.

Waxaa habboon inaad ka caawiso inay iyagoo eegaya sheeqaan. Odhaahdoodana aad ayey u fiican tahay haddii sidan oo kale u ekaato.

> Xariiqaha jog iyo jiifka leh oo loo adeegsado noocyada iyo jiradooda laguna muujiyo laydiyo waxaa loo yaqaanaa Baar – giraaf

Samaynta baar – giraafka sida tusaalaha buugga ardayga bogga 112 iy adoo lagu sallaynayo qaababkan soo socda sida ay ukala horreeyaan waa in aad u sharaxdaa adigoo ufaah-faahinaya:: kuwaaso ah:-

Koowaad samaynta xariiqaha joogga iyo jiifka ah. Shaqadan dhexdeeda xariiquhu maadaama ay tilmaamayaan noocyada iyo tiradooda iyada oo lasamaynayo xariiqo joogo ama xariiqa jiifka waa xariiqa jiifka ah waa in la qayb qaybiyaa si fogaan ahna isna laqayb qaybiyaa si isle'eg laguna foraa hadba tirada ay yihiin noocyadu. U sharax adigoo u faah – faahinaya in sidan loo samceyo.

Labaad samaynta Baar-giraafka .

Qaybtan sidaa looga shaqaynayo waxaa lagu daray waa laydiga iyadoo casharkii lagu xusay fogaanta ay isu jiraan ee loogu qayb qabiyay nocyada marbaa lagu salleiyo kadib u sharax sida laydiyada loo kala dhaadheeraysinayo taas oo lagu muujinayo xariiqa jooga ah tirooyinka ka muuqda ee noocyada.

Taabaha Qiimaynta.

Ardaydu marka ay samaynayaan baar – giraafka waxyaabaha looga baahan yahay ama qaababka ay ukala horreeyaan sida loo sameeyo baar-giraafka waa inaad u tilmmmantaa adigoo ku dul wareegaya sida ay u samaynayaan, ka caawi si ay u saxaan khaladkooda una sharax natiijada ama baar – giraafka kartidooda firo ahaan iyo odhaah (weedho) ahaan iyagoo tilmaamaya kala sarrayata noocyada si ay buuggooda ugu qortaan.

Buugga baruhu iska leeyahay ee uu ku diwaan gashado dabeecadaha ardayda waa inaad ku darsataa qiimayn taa ardayda dhukumanti ama xafidaad ahaan.

Jawaabaha laga doortay "B" ee layliska 7.1.2.B"
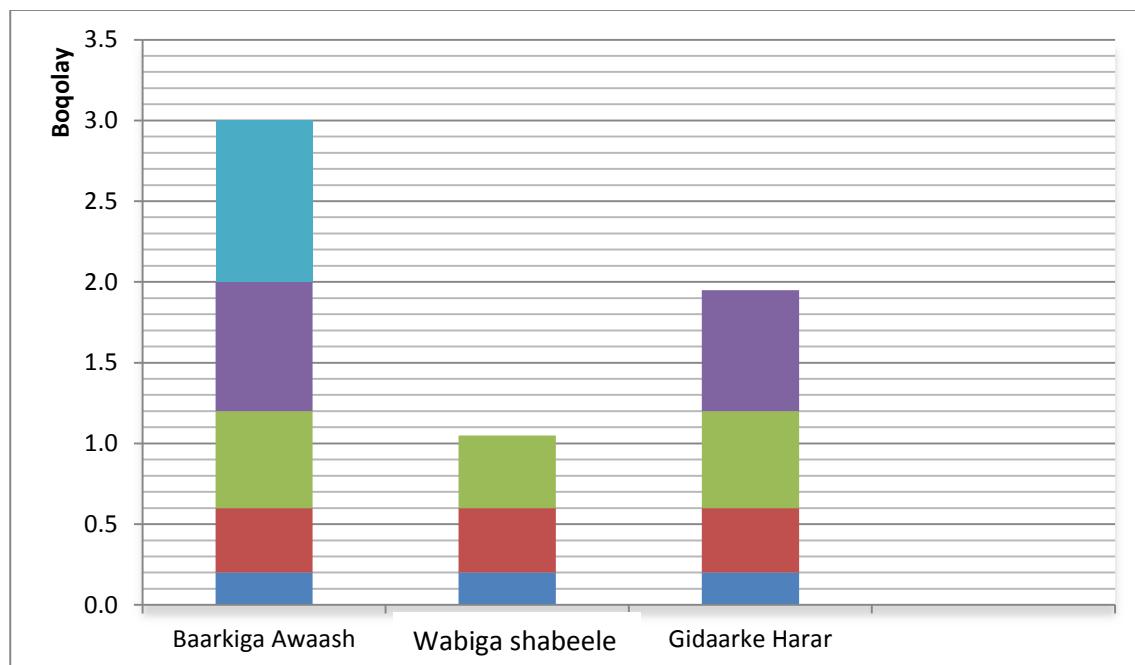
Ardaydu sida tusaale 1 ku xusan xogta la ururin yey shax ahaan loo adeegsaday kadib lagu muujiyey baar – giraaf iyagii samaynaya sida ay ukal horrecyaan oo ah xariiqaha joogga iyo jiifka ah iyo cadadkooda, fogaanta is le'eg ee laydiyadu isu giraan ayey ardaydu samaynayeen. Haddaba imikana waxaynu arki doonaa wakhtiyada ay laba laba laydi iyadoo la iske durkiyey habka loo sawiro. Habkan buugga ardayga bogga 114

Labada garaaf iyadoo laga jawaabaan. Jawaabahooda waxaa surto gal ah inay weedho kala du duduwan ku tilmaamaan sidaas daraadeed san inaad ka caawisaa si ay u yeeshaan aragtidan g

1. giraafka midabka dooga ah lamariyey waa natiijada maadada xisaabta ee saddexda arday.halka uu giraafka midka buluugga ah uu yahay natiijadooda maadada ingiriiska
2. isku durkinta ama isku dhawaynta laydiyada waxa uu tilmaamayaa xogta ay tilmaamayaan laydiyadu ee hal arday.

ku caawi ardayda inay aragti guud oo sidan oo kale yeeshaan kadib marka siaalaha wada tashiga ah jawaabaha kasoo baxa iyo habka ay aga duulayaan samaynta giraafyada.

> Laba ama inkabadan oo baar-giraafyo ah xariiqooda joogga ah xog isku midah oo shayyo kala duwan ama xog kala duman ooh al shay tilmaamaya hadduu yahay waxaa lagu diyaarin karaa isyadoo lasoo koobayo hal baar- giraaf.

Tabaha Qiimaynta

Ardaydu samaynta baar-giraafyada waxyaalaha looga baahan yahay sida ay ukala hor horreeyaan marka ay samaynayaan in ay sidii markii hore ka fiican yihiin iyo deg deg u samaynta xirfadooda ama kartidooda iyo waliba furaha girafka meeshii habboonayd iyo jidkii loo adeegsanayey ayaad indha indhayn ardayda uga gaan kartaa, buuggooda adigoo saxaya ayaa ku qonanaysaa buugga qiimaynta ardayga.

Jawaabaha layliska 7.1.2

Giraaf

Sida ku sawiran oo kale ayaad ardaydu iyo sharraxidda tusi kartaa adigoo usawiraya.

7.2 MACNAYNTA XOGTA LAGU MUUJIYEY GIRAAF LAYDIYEED

waqtiga loo qoondeeyay waa (3 xiso)

Ujeedooyinka

Cutub-hoosaadkani marka uu dhamaado ardaydu waxay awoodi doonaan in ay

❖ waxay macnaya doonaan xogaha baar – giraafka Ereyga gaarka ah macnayn

Hordhac

Hadda kahor ardaydu waxa ay barteen ururinta xogta, ku qorida shaxda iyo xogta ay shaxda ku qorreen oo ay ku qeexeen ama kumuujiyeen baar – giraaf. Cutubhoosaadkanna waxa ay ku baranayaan macanaynta xogta giraafka lagu qeexay iyagro ku xisaabtamaya xagta giraaf ka.

Hawlaha baris-barasho.

Cutub – hoosaadkan waxaa ku xusan laba shaqa oo laga shaqaynayo. Kuwan laga shaqaynayo shaqooyinka ah waxay ku diyaarsan yihiin buugga ardayga. Shaqada laqabanayo oo ah iyagoo kaduulaya baar-giraafka su'aalaha la diyaariyey ee dooda ah inay ka jawaabaan su'aalaha qaarna kahor tusaale ahaan adigoo u adeegsanaya ayaa habboon inaad u sharaxdo. Qaabka loo siinaya waa giraaf yada buugga ardayga ku qoran iyagoo eegayo iyo barahoodu baar- giraaf lamid ah oo u diyaariyey iyagoo ka jawaa baya haka wada doodaan. Waxaa loobaahan yahay jawaabta ardayda in la xidhiidhiyo baar-giraafka si ay sabab uga dhigaan. Waxaana habboon jawaabahooda inay sidan u ekaato.

Jawaabaha shaqada "B" iyo "T"

Shaqo"B"

1.   25 fiidmeer
2. 10 haad
3. 85 shimbirood ayaajira
4. _____
5. Haad
6. 20 tuke tirada _____ fiidmeer (30) iyo Haad (10) inta u dhaxaysa.

MUQARARKA XISAABTA FASALKA 4^{AAD}

Waxaa Tarjumay
Mr. Cabdisalaad Max'ed

Cutubka 1aad :- <u>Tirooyinka Idil Ilaa 1,000,000</u> (25 Xiisadood)
Ujeeddooyinka Guud ee Cutubkan:-

Cutubkani marka uu dhammaado kadib, Ardaydu waxay awood u yeelan doonaan (Awood u yeelan karaan).

- Akrinta, Qoridda, Isbarbardhigidda iyo Horsanaanka Tirooyinka Idil ilaa 10,000.
- Akhrinta iyo Qoridda Dhufsaneyaasha 10,000 iyo 100,000 ilaa 1,000,000.
- Akhrinta iyo Qoridda Tirooyinka idil ilaa 1,000,000.
- Muujinta Qiima – Rugeedka Tirooyinka 6-God ah.
- Isbarbardhigidda iyo Horsanaanta Tirooyinka Idil ilaa 1, 000,000.

- Qoridda Qiimaha ugu dhow ee Tirooyinka, iyaga oo Tirooyinkaas u soo gaabinaya (u soo riixaya) Tobnaadyada, Boqolaadyada, kunaadyada, Toban – Kunnaadka iyo Boqol – Kunaadka ugu dhow.

Xisaabta Fasalka 4aad

Ujeeddooyinka gaarka ah ee casharka	*Ciwaanada Cutubka qaybaha iyo Casharada*	*Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay*	*Tallaabooyinka Qiimeynta*
Ardaydu waa in ay Awood u yeelankaraan:- - Akhrinta Tirooyinka idil ilaa 10,000. - Qoridda. Tirooyinka idil ilaa 10,000. - Isbarbardhigidda iyo Horsanaanta Tirooyinka idil ilaa 10,000.	**1. TIROOYINKA IDIL ILAA 1,000,000.** Naqtiin Tirooyinka idil ilaa 10,000 (3 Xiso)	- Fursad u sii Ardayda in ay Akhriyaan isla markaana Qoraan Tirooyinka idil ilaa 10,000. - Ka caawi Ardayda, iyaga oo Lammaane –Lammaane ah, in ay sameeyaan ururro Tirooyin idil ah oo ka kooban shan (5) Tiro ilaa 10,000. Kadibna weydii kuwa dhinacooda Fadhiya in ay u Qoraan Horsanaan.	- Sii Ardayda Laylisyo ku saabsan Akhriska, Qoraalka iyo Horsanaanta Tirooyinka idil ilaa 10,000.
- Soo saaridda Dhufsaneyaasha 1000, ilaa 1000,000. - Soo saaridda Dhufsaneyaasha 10,000 ilaa 1,000,000. - Ka shaqaynta Isugeynta laba Tiro oo ah Dhufsaneyaasha 1000, Dhufsaneyaasha 10,000 iyo Dhufsaneyaasha 100,000. - Ka shaqaynta kalagoynta laba Tiro	Dhufsaneyaasha 1000; 10,000; iyo 100,000. (3 Xiso)	- Ku hoggaami Ardayda in ay soo saaraan isla markaana Taxaan Dhufsaneyaasha 1000; 10,000; iyo 100,000 ilaa 1,000,000. - Ka caawi Ardayda in ay isugeeyaan laba Tiro oo idil oo ah Dhufsaneyaasha 1000; 10,000 iyo 100,000 ilaa 1,000,000. - Ka caawi Ardayda in ay kalagooyaan laba Tiro oo idil oo ah Dhufsaneyaasha 1000; 10,000; iyo 100,000	- Sii Ardayda Laylisyo shaqo Fasal iyo shaqo Guri ah oo ku saabsan soo saaridda Dhufsaneyaasha 1000; 10,000 iyo 100,000. - Sii Ardayda laylisyo ku Isugeynta, kalagoynta

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
oo ah Dhufsaneyaasha 1000, Dhufsaneyaasha 10,000 iyo Dhufsaneyaasha 100,000. • Isbarbar dhigidda Tirooyinka idil ee ah Dhufsaneyaasha 1000; 10,000 iyo 100,000.		iyo 1,000,000. • Fursad u sii Ardayda in ay Isbarbardhigaan Tirooyinka idil ee ah Dhufsaneyaasha 1000; 10,000 iyo 100,000 ilaa 1,000,000.	iyo Isbarbardhigidda Dhufsaneyaasha, 1000; 10,000 iyo 100,000.
• Raad inta Tirooyinka idil ilaa 1,000,000 iyaga oo Tirooyinka ilaa shanta God ah u geynaya Dhufsaneyaasha 1000; 10,000 iyo 100,000. • Akhrinta Tirooyinka idil ilaa 1,000,000. • Qorista Tirooyinka idil ilaa 1,000,000.	Tirooyinka idil ilaa 1,000,000. (4 Xiso)	• Ku hoggaami Ardayda in ay sameeyaan shaxda Dhufsaneyaasha 1000; 10,000 iyo 100,000 ilaa 1,000,000. • Ka caawi Ardayda in ay Dhufsaneyaasha 1000; 10,000 iyo 100,000 u geeyaan Tirooyinka idil ee ilaa shanta god ah. • Fursad u sii Ardayda Akhrinta iyo Qorista Tirooyinka idil ilaa 1,000,000, iyaga oo ka duulaya shaxda ay sameeyeen.	• Sii Ardayda Laylisyo shaqo Fasal iyo shaqo Guri ah oo ku saabsan Qoraal ka Tirooyinka idil ilaa 1,000,000. • Weydii Ardayda in ay kor ugu dhawaaqaan Tirooyinka idil ilaa 1,000,000.
• Soo soocidda (muujinta) Godadka Qiima-Rugeedka ee Tirooyinka 6-da God ah.	**1. Qiima – Rugeedka Tirooyinka 6-da God ah (5 Xiso)**	• Ka caawi Ardayda in ay sameeyaan shaxda Godadka Qiima – Rugeedka Tirooyinka lixda God ah, ee la siiyey, Isla markaana ay ku Qoraan godad kooda saxda ah. Sida Godka Boqol – Kunaadka (BK), Godka Tobankunaadka (TK), Godka kunaadka (Kun) Godka Boqolaadka (B), Godka Tobnaadka (T) iyo Godka koowaadka ee Tiro kasta.	• Sii Ardayda Tirooyin idil oo lix (6) God ah, ka dibna Haku muujiyeen shaxda Godadaka Qiima – Rugeedka.

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay							Tallaabooyinka Qiimeynta
		Tir ade	B K	T K	K u n	B	T	K	
		72 8, 54 6	7	2	8	5	4	6	
• Isbarbardhigidda Tirooyinka idil ilaa 1,000,000. • Horsanaanta Tirooyinka idil ilaa 1,000,000, iyaga oo u Qoraya Horsanaanta Fanata iyo Horsanaanta Degta.	Isbarbardhigidda iyo Horsanaanta Tirooyinka idil ilaa 1,000,000. (5 Xiso)	• Fursad u sii Ardayda in ay soo saaraan Tirooyinka idil ee u dhexeeya laba Tiro oo min lix (6) God ah oo la siiyey. • Ka caawi Ardayda in ay isbarbardhigaan Tirooyinka idil ee hxda God ah, iyaga oo adeegsanaya calaamaddahan kala ah "<", ">" iyo "=". • U horsed Ardayda, iyaga oo Lammaane-Lammaane ah, in ay Qoraan Afar ama shan Tiro oo 6-God ah. Kadibna weydii Ardayda kale in ay u Qoraan Horsanaan Fanata iyo Horsanaan Degta.							• Sii Ardayda Laylis ah saddex-Saddex Tiro oo min 6-God ah kadibna weydii in ay u qoraan Horsanaan. • Weydii Ardayda in ay soo saaraan Tirooyinka u dhexeeya laba Tiro oo min lix (6) Good ah oo la siiyey.
• Adeegsiga sumadda Qiimaha ugu dhow. • U rarista Tobnaadyo (10s) iyo Boqolaadyo (100s) kunnaadyo (1000s) Toban – Ku naadyo (10,000s) iyo Boqol – kunnaadyo (100,000s) Tirooyinka idil ee ah ilaa 1,000,000	U Qarista Qiyaasta Qiimaha ugu dhow (5 Xiso)	• U horsed Ardayda in ay si fiican u Fahmaan Ahmiyadda Qiyaasta Qiimaha ugu dhow ay u leedahay Nolol – Maalmeedka sida Tirinta dadweynaha. • Ku hoggaami Ardayda Akhriska iyo Qoraalka Sumadda Qiyaasta Qiimaha ugu dhow oo ah "≈". • Ka caawi Ardayda in ay Tirooyinka idil ee ah ilaa 1000 u raraan marka hore Tobnaadyada (10s) kadibna							• Weydii Ardayda in ay summadda Qiyaasta Qiimaha ugu dhow ay ka soocaan ururka sumaddaha kale. • Sii Ardayda Laylisyo shaqo Fasal iyo shaqo

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
		Boqolaadyada (100s) sida 6346 ≈ 6350 (u Rarista Tobnaadka) 6346 ≈ 6300 (u Rarista Boqodaadka) • Ku hoggaami Ardayda in ay sii wadaan u rarista Qiimaha ugu dhow ee Tirooyinka idil ilaa 1,000,000.	Guri ah oo ku saabsan u rarista Tirooyinka idil Qiyaasta Qiimaha ugu dhow oo ah Tobnaadyo, Boqolaadyo, iyo kunnaadyo.

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta

Cutubka 2ᵃᵃᵈ :- <u>AFARTA XISAABTAL EE Tirooyinka Idil ilaa 1,000,000</u> (41 Xiisadood)

Ujeeddooyinka Guud ee Cutubkan:-

Cutubkani marka uu dhammaado kadib, Ardaydu waxay awood u yeelan doonaan (Awood u yeelan karaan).

- Isugeynta Tirooyinka idil ilaa 1,000,000.
- Kalagoynta Tirooyinka idil ilaa 1,000,000.
- Iskudhufashada Tirooyinka idil ilaa 1,000,000.
- Isuqaybinta Tirooyinka idil ilaa 1,000,000.

Xisaabta Fasalka 4ᵃᵃᵈ

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
Ardaydu waa in ay Awood u yeelankaraan:- • Soo saaridda wadarta laba Tiro oo Tirooyin idil ah ilaa 1,000,000. • Soo saaridda Faraqa laba Tiro oo Tirooyin idil ah ilaa 1,000,000. • Adeegsiga xeerka kala hormarinta iyo xeerka Hormogelinta ee Isugeynta si ay ugu Furfuraan Mas'alooyinka. • Sharxidda Xidhiidhka ka dhexeeya Isugeynta iyo kalagoynta. • Furfurista weedhxisaabeedyada ah Isugeynta iyo kalagoynta.	**2. AFARTA XISAAB FAL EE TIROOYINKA IDIL ILAA 1,000,000.** Isugeynta iyo Kalagoynta Tirooyinka idil ilaa 10,000 (11 Xiso)	• Ka caawi Ardayda in ay Raadiyaan wadarta laba Tiro oo Tirooyin idil ah, iyaga oo adeegsanaya Godadka Qiima-Rugeedka. • Fursad u sii Ardayda oo Lammaane-Lammaane ah in ay xaqiijiyaan xeerka kala hormarinta Isugeynta kadibna ay ku hobiyaan Tirooyinka. • Ku hoggaami Ardayda in Astaanta Hormogelinta Isugeynta ay u Adeegsadaan Raadinta wadarta saddex Tiro. Sida $(21 + 76) + 45 = 21 + (76 + 45)$ una horsed in ay Isbarbardhigaan Natijada.	• Weydii Ardayda in ay keenaan Tusaaleyaal muujinaya xeerka kala Hormarinta Isugeynta. • Weydii Ardayda in ay ku Tusaan in aan la kala Hormarin Karin kalaynta. • Sii Ardayda Laylisyo shaqo Guri ah oo ku saabsan furfurista weedhx isaabeedyada Isugeynta iyo kalagoynta ah.

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
		• Ka caawi Ardayda in ay Raadiyaan faraqa laba Tiro oo Tirooyin idil ah, iyaga oo adeegsanaya Qiima – Rugeedka. • Fursad u sii Ardayda in ay Daahfuraan in aan kalagoynta la kala Hormarinkarin. • U Horseed ardayda, iyaga oo la mmaane ah, in ay xaqiijiyaan xidhiidhka ka dhexeeya Isugeynta iyo kalagoynta, ayna Hubiyaan. • Ku hoggaami Ardayda iyaga oo Lammaane ah in ay Furfuraan Weedhi – xisaabeedyada Isugeynta iyo kalagoynta ah.	
• Soo saaridda Taranta Tirooyinka idil iyo Tiro 1-God ah oo Tarantoodu ka yar tahay 1,000,000. • Soo saaridda Taranta Tirooyinka idil iyo Tiro 2-God ah oo tarantoodu ay ka yar tahay 1,000,000. • Muujinta xeerarka kala hormarinta iyo Hormogelinta Iskudhufashada, iyaga oo adeegsanaya Tusaaleyaal la siiyey.	Iskudhufashada Tirooyinka idil ee Tarantoodu ka yar tahay 1,000,000 (15 Xiso)	• Fursad u sii Ardayda in ay si Ficil ah ugu celceliyaan Isku dhufashada Tirooyinka idil iyo Tiro 1-God ah. • Fursad u sii ardayda in ay muujiyaan Habka Tirooyinka idil Loogu dhufto Tiro laba God ah, iyaga oo ka bitabaya Tiro 2-God ah oo lagu dhuftay Tiro kale oo 2-God ah, Tiro 3-God ah oo lagu dhuftay Tiro 2-God ah ilaa ay	• Weydii Ardayda in ay iskudhuftan Tiro idil iyo Tiro 1-God ah oo Tarantoodu kaya tahay 1,000,000. • Sii Ardayda Laylisyo shaqo Fasal iyo shaqo Guri ah oo ku saabsan Iskudhufashada Tiro 3-God ah, Tiro 4-God ah

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
• Furfurista weedhxisaabeedyada Iskudhufashada ah iyaga oo adeegsanaya Tirooyinka idil ilaa 1,000,000.		gaadhaan Tiro 5-God ah oo lagu dhuftay Tiro 2-God ah. • Ku hoggaami Ardayda Liyaga oo Lammaane ah in ay xaqiijiyaan xeerka kala hormarinta Isku dhufashada isla markaana ay keenaan Tusaaleyaal iyaga oo adeegsanaya Laba-laba-Tiro. • Ku hoggaami Ardayda, iyaga oo Lammaane ah in ay xaqiijiyaan xeerka Hormogelinta Iskudhufashada, isla markaana ay soo bandhigaan tusaaleyaal kala duwan iyaga oo adeegsanaya saddex-Saddex Tiro. • Ka Taageer Ardayda in ay Furfuraan weedh-xisaabeedyada Iskudhufashada ah.	iyo Tiro 2-God ah , Tiro 5-God ah Tiro 2-God ah kana hobi shaqada Arday kasta. • Weydii Ardayda in ay ku siiyaan Tusaaleyaal muujinaya xeerarka kala hormarinta iyo Hormogelinta. Isku dhufashada. • Weydii Ardayda in ay Furfuraan weedh-xisaabeedyada Isku dhufashada ah.
• Isuqaybinta Tiro idil oo loo qaybinayo Tiro 1-God ah, kuwa Haraaga leh iyo kuwa aan lahaynba. • Adeegsiga xidhiidhka ka dhexeeya Iskudhufashada iyo Isuqaybinta si ay u hobiyaan saxnimada	Isuqaybinta Tirooyinka idil ilaa 1,000,000 iyo Tiro 1-God ah iyo 10. (15 Xiso)	• Fursad u sii Ardayda in ay si Ficil ah ugu celceliyaan Isuqaybinta Tiro 4-God ah ilaa Tiro 6-God ah oo loo qaybinayo Tiro 1-God ah oo ah kuwa aan Haraaga lahayn iyo kuwa Haraaga lehba.	• Weydii Ardayda in ay ka shaqeeyaan laylisyada ah Isuqaybinta Tirooyinka idil iyo Tiro 1-God ah kana hubishaqadooda. • Weydii aRdayda in ay ku Tusaan xidhiidhka ka

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
Qaybta Isuqaybinta. • Furfurista weedh-xisaabeedyada ah Isuqayb inta Tirooyinka idil ilaa 1,000,000 iyo Tirooyinka min 1-God ah.		• Ku hoggaami Ardayda, iyaga oo Lammaane ah in ay xaqiiqsadaan xidhiidhka ka dhexeeya iskudhufashada iyo isuqaybinta. • Ka caawi Ardayda in Hubinta Laylisyada isuqaybinta ah ay u adeegsadaan xidhiidhka ka dhexeeya Iskudhufashada iyo Isuqaybinta. • Ka Taageer Ardayda in ay Furfuraan weedh-xisaabeedyada ku saabsan Isuqaybinta Tirooyinka idil iyo Tiro 1-God ah.	dhexeeya Iskudhufashada iyo Isuqaybinta iyaga oo adeegsanaya laba Tiro oo kasta. • Sii Ardayda weedh-xisaabeedyo Isuqaybin ah oo shaqo Fasal iyo shaqo Guri ah

Cutubka 3ᵃᵈ :- <u>JAJABYADA iyo JAJAB – TOBAN LEYAASHA</u> (27 Xisadood)

Ujeeddooyinka Guud ee Cutubkan:-

Cutubkani marka uu dhammaado kadib, Ardaydu waxay awood u yeelan doonaan (Awood u yeelan karaan).

- Fahmidda Jajabyadu in ay yihiin Qaybaha (Gaballada) Hal walax (hal shay).
- Isbarbardhigidda iyo Horsanaanta Jajabyada leh Hooseeyeyaal isku mid ah.
- Isugeynta iyo Kalagoynta Jajabyada leh Hooseeyeyaal Isku mid ah.
- Soo soocidda iyo soo saaridda Jajabyada Isudhigma.
- Qeexidda iyo Adeegsiga jajab-Tobanleyaasha ah Toban – Daloolka (Tenths) iyo Boqol – Daloolka (Hundredths)
- Isbarbardhigidda iyo Horsananta Jajab – Toban leyaasha leh 2 God oo midig ka xiga Barta Jajab-Tobanle.
- Isugeynta iyo Kalagoynta Jajab-Tobnaleyaasha leh 2God oo midig ka xiga Barta Jajab-Tobanle.

Xisaabta Fasalka 4ᵃᵃᵈ

Ujeeddooyinka gaarka ah ee casharka	*Ciwaanada Cutubka qaybaha iyo Casharada*	*Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay*	*Tallaabooyinka Qiimeynta*
Ardaydu waa in ay Awood u yeelankaraan:- • Qoridda Jajabyada u Taagan Qaybaha Hal shay ama Hal walax. • Qeexidda sarreeyaha iyo Hooseeyaha Jajabka. • Kala soo cidda sarreeyaha iyo Hooseeyaha Jajabyada.	3. **JAJABYADA iyo JAJABTOBANLEYAASHA**. Jajabyadu waa Qaybaha walaxda (4 Xiso)	• Fursad u sii Ardayda in ay Jajab ahaan u muujiyaan Qaybaha (Gaballada) hal walax iyaga oo adeegsanaya walxo la Taaban karo ama sawirro. • Ku hoggaami ARdayda in ay Qeexaan Macnaha Ereyada "Sarreeye" iyo "Hooseeye", iyaga oo adeegsanaya Sawirrada muujinaya Qaybaha hal walax. • U horsed Ardayda in ay soo socaan sarreeyaha iyo Hooseeyaha Jajabyada.	• Weydii ardayda in ay Qoraan Jajabyada u Taagan Qaybaha hal shaq. • Weydii Ardayda in ay kala soocaan sarreeyaha iyo Hooseeyaha Jajabyada la siiyey.
• Isbarbardhigidda Jajabyada leh Hooseeye isku mid ah. • Horsanaanta Jajabyada leh	Isbarbardhigidda iyo Horsanaanta Jajabyada leh Hooseeye isku mid ah. (2 Xiso)	• Ku hoggaami Ardayda, iyaga oo adeegsanaya Jajab – Liidimeedka, in ay Qoraan Jajabyada u Taagan Qayb kasta (Gabalkasta) oo ka mid	• Weydii Ardayd in ay ku Tusaan Horsanaanta Jajabyada leh Hooseeye isku

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
Hooseeye isku mid ah.		ah Jajab-Liidimeedka sida • Ka caawi Ardayda in iyaga oo adeegsanaya Jajab-Liidimeedyada ay Isbarbardhigaan Jajabyada leh Hooseeye isku mid ah sida way ka yar tahay ayna Adeegsadaan sumaddaha >, < , = sida	mid ah.
• Isugeynta Jajabyada leh Hooseeye Isku mid ah. • Kalagoynta Jajabyada leh Hooseeye isku mid ah.	Isugeynta iyo kalagoynta Jajabyada leh Hooseeye isku mid ah (3 Xiso)	• Caawi Ardayda in laba Jajab-Liidimeed oo isku mid ah ama xarriiqda Tirada ay u adeegsadaan Isugeynta iyo kalagoynta Jajabyada leh Hooseeye isku mid ah.	• Sii Ardayda Laylisyo shaqo guri ah oo ah Isugeynta iyo kalagoynta Jajabyada leh Hooseeye isku mid ah.
• Muujinta Jajabyada Isudhigma iyaga oo adeegsanaya sawirro. • Raadinta Jajabyada u dhigma Jajab la siiyey	Jajabyada Isudhigma (5 Xiso)	• Ku hoggaami Ardayda in ay Fahmaan Jajbyada Isudhigma iyaga oo adeegsanaya sawirro sida "hal xabbo oo isle'eg" "Liin kale oo look ala gooyey Afar (4) Gabal oo isle'eg" iyo "Liin kale oo loo kalagooyey siddeed (s) Gabal oo isle'eg" kuwaasoo muujinaya • Tus Ardayda Tallaabooyinka lagu Raadiyo Jajabyada u dhigma Jajab la siiyey Tusaaleyaal ah. Sida • Fursad u sii ARdayda in ay soo saaraan Jajbyada u dhigma jajab la siiyey.	• Weydii Ardayda in ay soo saaraan Jajabyada u dhigma Jajabaad siisay, kadibna hubi shaqadooda oo ku Qiimee.
• Ku muujinta Toban-dalool-Lada xarriiqda	Toban-Daloolada Boqol-Daloolada	• Ku hoggaami Ardayda in ay sawiraan xarriisda	• Sii Ardayda Laylisyo

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
Tirada dusheed. • Ku muujinta Boqol-Daloollada Labajibbaaraneyaal 10 x 10. • U Qoridda Toban-daloool kasta Jajab – Tobanle. • U Qoridda Boqol-Daloool kasta Jajab-Tobanle. • Muujinta Qiima – Rugeedka Jajab-Tobanleyaasha leh 2God oo midig ka xiga Barta Jajab-Tobnlaha.	iyo Jajab-Tobanleyaasha (4 Xiso)	Tirada, kuna muujiyaan Toban-Daloollada ah iyo 1. • Fursad u sii ardayda in ay Toban-Daloool kasta u Qoraan Jajab-Toban laha ku began sida = 0.1; = 0.2; =0.3. • Ka caawi ardayda in ay Qaar ka mid ah Boqol – Daloolada ku muujiyaan 10 x 10 labajibbaaraneyaal yar-yar sida ---- • Fursad u sii Ardayda in ay Boqol –Daloolkasta u Qoraan Jajab-Tobanlaha ku began. Sida = 0.05. • Ka caawi Ardayda in ay Jajabyada u bedelaan Jajab-Tobanleyaasha ku began sida Birr = 0.25 Birr.	shaqo Fasal iyo shaqo Guri ah oo ku saabsan Toban-Daloolada iyo Boqol-Daloolaada oo loo bedelayo Jajab-Tobanleyaasha leh 1 ama 2-God oo midig ka xiga Barta Jajab-Tobanle.
• Isbarbardhigidda Jajab-Toban leyaasha Leh ilaa 2God oo midig ka xiga Barta Jajab-Tobanle • Horsanaanta Jajab-Tobanleyaasha leh ilaa 2 God oo midig ka xiga Barta Jajab-Tobanlaha	Isbarbardigidda iyo Horsanaanta Jajab-Tobanleyaasha (5 Xiso)	• Ku hoggaami Ardayda in ay si ficil ah ugu celceliyaan Isbarbardhigidda Jajab Tobanleyaasha leh 1-God oo midig ka xiga barta Jajab-Tobanlaha, isla markaana ay ku Furfuraan Ma'alooyinka sida "Haddii Armaajo Jooggeedu yahay 2.8 mitir la saaro Gaadhi Joogga Buudigiisu yahay 2.5 mitir Markaa Armaajadu ma kor bayu dhaataysaa Buudiga Gaadhiga? • Ka caawi Ardayda in ay	• Weydii Ardayda in ay Furfuraan Mas'alooyinka ku saabsan Isbarbardhigid da Jajab-Tobanleyaasha leh ilaa 2-God oo midig ka xiga Barta Jajab-Tobanlaha. • Sii Ardayda Laylisyo shaqo Guri ah oo ka kooban shan Jajab-

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
		Furfuraan Mas'alooyin la mid ah tan kor ku Qoran iyaga oo adeegsanaya Jajab-Tobanleyaasha leh 2-God oo midig ka xiga Barta Jajab-Tobanlaha. • Fursad u sii Ardayda in ay Jajab-Tobanleyaasha u qoraan Horsanaan iyaga oo isbarbardhigaya Godadka isku began ama Godadka leh Qiima-rugeed isku mid ah. • Ka Taageer Ardayda, iyaga oo Lammaane ah in ay Falanqeeyaan Horsanaanta Jajab-Tobanleyaasha leh 2-God oo midig ka xiga Barta Jajab-Tobanlaha, iyaga oo adeegsanaya Tusaaleyaal sida "Horsanaan u qor Jajab-Tobanleyaashan 2.54; 3.2; 2.62; 2.53; 3.18, kana bilow kan ugu weyn Isla markaana ay u qoraan sedan 3.2 > 3.18 > 2.62 > 2.54 >2.53.	Tobanle isla markaana weydii in ay u Qoraa Horsanaan Fanata iyo Horsanaan degta.
• Isugeynta Jajab-Tobanleyaasha leh ilaa 2-God oo midig ka xiga Barta Jajab-Tobanlaha. • Kalagoynta Jajab-Tobanleyasha leha ilaa 2-God oo midig ka xiga Barta jajab-Tobanlaha.	Isugeynta iyo kalagoynta Jajab-Tobanleyaasha (4 Xiso)	• Ku hoggaami ARdayda in ay isugeeyaan Jajab-Tobanleyaasha leh 1-God oo midig ka xiga Barta jajab-Tobanlaha iyaga oo adeegsanaya xarriiqda Tirada oo lagu muujiyey jajab-Tobanleyaal iyo Labajibaaraneyaaal ah 10 x 10 oo muujinaya	• Weydii Ardayda in ay ka shaqeeyaan Laylisyada ah Isugeynta iyo kalagoynta Jajab-Tobanleyaasha leh ilaa 2-God oo midig ka xiga Barta

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
		Boqol-Daloolada Jajab-Tobanlaha ah. • Ka caawi Ardayda in ay kalagooyaan Jajab-Tobanleyaasha leh 1-God oo midig ka xiga Barta jajab-Tobanlaha iyaga oo adeegsanaya xarriiqda Tirada oo lagu muujiyey Jajab-Tobanleyaal iyo labajibbaaraneyaal ah 10 x 10 oo lag muujiyey Boqol-Daloollada Jajab-Tobanlaha ah.	Jajab-Tobanlaha.

Cutubka 4^{ad} :- <u>CABBIRAADDA</u> (18 Xisadood)

Ujeeddooyinka Guud ee Cutubkan:-

Cutubkani marka uu dhammaado kadib, Ardaydu waxay awood u yeelan doonaan (Awood u yeelan karaan).

- Xisaabinta halbeegyada dhererka ee kala duwan.
- Xisaabinta Halbeegyada Culayska eek ala duwan.
- Xisaabinta Halbeegyada Dareeraha ee kala duwan.

Xisaabta Fasalka 4^{aad}

Ujeeddooyinka gaarka ah ee casharka	*Ciwaanada Cutubka qaybaha iyo Casharada*	*Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay*	*Tallaabooyinka Qiimeynta*
Ardaydu waa in ay Awood u yeelankaraan:- • Isku bedelidda Halbeegyada dhererka ee waaweyn oo loo bedelayo kuwa yar-yar. • Iskubedelidda Halbeegyada dhererka ee yar-yar oo loo bedelayo kuwa waaweyn. • Isugeynta Halbeegyada dhererka. • Kalagoynta halbeegyada Dhererka. • Isbarbardhigidda Halbeegyada dhererka. • Furfurista weedh-xisaabeedyada la xidhiidha Halbeegyada Dhererka.	4. **CABBIRAADDA** Cabbiraadda Dhererka (6 Xiso)	• Fursad u sii Ardayda in kiilomitir (km) ay u bedelaan mitir (m) iyo sentimitir (sm). • Ka caawi Ardayda in ay mitir (m) u bedelaan kiilomitir (km), isla markaana ay sentimitirka (sm0 u Natiijada u Qoraya Jajab-Tobanleyaal leh ilaa 2-God oo midig ka xiga Barta Jajab-Tobanlaha. • Ka caawi Ardayda in ay Isugeeyaan, ayna kalagooyaan Halbeegyada dhererka ee ah km, m iyo sm, iyaga oo marka hore u bedelaya sm. • Ku hoggaami Ardayda in ay Isbarbardhigaan Halbeegyada dhererka ee kala duwan iyaga oo dhammaan tood u bedelaya Halbeegyo isku mid ah. • Fursad u sii Ardayda in ay ka shaqeeyaan (Furfuraan) weedh-xisaabeedyada ku saabsan Halbeegyada dhererka.	• Weydii ardayda in ay Cabbiraan dhererka Dheskiyadooda, kuna cabbiraan mitir (m), sentimitir (sm) iyo millimitir (mm). • Sii Ardayda Laylisyo shaqo Guri ah oo ku saabsan isku bedelidda, isugeynta, kalagoynta, Isbarbardhigidda ee Halbeegyada dhererka ee kala duwan kan ugu weyn ilaa kan ugu yar.

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
• Sharxidda Halbeegga "Tan" • Qeexidda xidhiidhka dhexeeya "Tan" iyo "Kiintaal" • Iskubedelidda Halbeegyada culayska midba kan kale. • Isugeynta Halbeegyada culayska. • Kalagoynta habeegyada culayska. • Isbarbardhigidda Hlbeegyada culayska. • Furfurista weedh-xisaabeedyada la xidhiidha Halbeegyada culayska.	Cabbiraadda culayska (6 Xiso)	• Fursad u sii ardayda in ay xaqiiqsadaan (Aqoonsadaan) Halbeegga "Tan" iyo culayska loo isticmaaloba. • U horsed Ardayda in ay sharrax ka bixiyaan xidhiidhka ka dhexeeya "Tan" iyo Halbeegyada kale ee culayska. • Ka caawi Ardayda in ay isku bedelaan Halbeegyada culayska midba kan kale, isla markaan ay Natiijada u qoraan Jajb-Tobanleyaal leh ilaa 2-God oo midig ka xiga Barta jajab-Tobanlaha. • Ku hoggaami Ardayda in ay si Ficil ah ugu celceliyaan Isugeynta iyo kalagoynta Halbeegyada culayska iyaga oo adeegsanaya Halbeegyo kala duwan. • Ka caawi Ardayda in ay Isbarbardhigaan Halbeegyada culayska iyaga oo marka hore ka dhigaya Halbeegyo isku mid ah • U horsed Ardayda in ay Furfuraan weedh-Xisaabeedyada la xidhiidha halbeegyada culayska ee kala duwan.	• Weydii Ardayda in ay Isbarbardhigaan culaysyada laba waxood oo culayskoodu ku cabbiran yahay Hlbeegyo kal duwan. • Sii ardayda Laylisyo ah Isugeynta iyo kalagoynta habeegyada culays ka kala duwan. • Sii ardayda weedh-Xisaabeedyo la xidhiidha Habeegyada culayska oo shaqo Fasal iyo shaqo Guri ah.
• Isku bedelidda Litirka (ml) iyo	Cabbiraadda Dareeraha	• Fursad u sii Ardayda in ay keenaan weelal kala	• Weydii Ardayda in ay Isku

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
millimitirka (ml) oo loo bedelayo litir (l). • Isugeynta Hlbeegyada Dareeraha. • Kalagoynta Hlbeegyada Dareeraha. • Isbarbardhigidda Halbeegyada Dareeraha. • Furfurista weedh-xisaabeedyada la xidhiidha Halbeegyada Dareeraha.	(6 Xiso)	duwan oo ay ku qoran yihiin cabbirka inta uu weelkasta Qaadi karo, islamarkaana ka caawi in ay Iskubedelaan Litirka (l) oo loo bedelayo milliliter (ml) iyo milliitirka (ml) oo loo bedelayo litir (l) (sida 500ml = $\frac{1}{2}$ l). • Ka caawi in ay Isbarbardhigaan Halbeegyada Dareeraha eek ala duwan. • Ka caawi Ardayda in ay si Ficil ah ugu celceliyaan Isugeynta iyo kalagoynta Halbeegyada Dareeraha ee kala duwan. • Ku Gacansii Ardayda in ay furfuran weedh-xisaabeedyada ku saabsan Halbeegyada Dareeraha.	bedelaan halbeeggada Litirka (la0 iyo millilitirka (ml) midba kan kale. • Weydii aRdayda in ay Isbarbar. Digaan Halbeegyada Dareeraha. • Weydii Ardayda in ay Furfuraan weedh-xisaabeedyada ku wajahan Halbeegyada Dareeraha.

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta

Cutubka 5^{ad} :- <u>SHAXANNADA SALLAXA iyo KUWA ADKAHA AH</u> (20 Xisadood)

Ujeeddooyinka Guud ee Cutubkan:-

Cutubkani marka uu dhammaado kadib, Ardaydu waxay awood u yeelan doonaan (Awood u yeelan karaan).

- Aqoonsiga iyo Sawiridda xaglaha Qumman.
- Sharxidda Baraha, xarriiqaha Toosan iyo sallaxyada.
- Xisaabinta wareegga iyo Bedka Laydiyada iyo Labajibbaaranaeyaasha.
- Aqoonsiga iyo sameynta Moodheellada Adkeyaasha Fudud..

Xisaabta Fasalka 4^{aad}

Ujeeddooyinka gaarka ah ee casharka	*Ciwaanada Cutubka qaybaha iyo Casharada*	*Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay*	*Tallaabooyinka Qiimeynta*
Ardaydu waa in ay Awood u yeelankaraan:- - Ka soo soocidda Deggaankooda xaglaha Qumman. - Dhisidda xagalaha Qumman.	5. **SHAXAADA SALLAXA AH iyo KUWA ADKAHA AH** Xagal Qummaan. (3 Xiso)	- Fursad u sii Ardayda, iyaga oo ah Lammaane-lammaane in ay si Fiican u Fiirfiiriyaan Agagaarkooda isla markaana ay ka soo soocaan xaglaha Qummaan sida Fasalkooda. - U horsed ardayda in ay sharrax ka bixiyaan xaglaha Qumman, iyaga oo adeegsanaya Gacmahooda. - Ka caawi Ardayda in ay sawiraan xaglaha Qumman, iyaga oo adeeegsanaya mastarad ama walxo leh cidhifyo Toosan sida cidhifyada Buugga.	- Weydii ardayda in ay walxaha ay yaqaanaan ka soo soocaan xaglaha Qumman.

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
• Sharraxidda sallax, iyaga oo adegsanaya walxo leh dul siman. • Sharraxiyada xidhiidhka Bareed/meeleed ee ka dhexeeya Baraha, xarriiqaha Toosan iyo sallaxyada.	Baraha xarriiqaha Toosan iyo sallaxyada. (5 Xiso)	• Fursad u sii Ardayda in ay sharrax ka bixiyaan xarriiqdu meesha ay kaga dhacdo (Taallo) sallaxa, iyaga oo ku dhawaaqaya "xarriiqdu way ka sarraysaa sallaxa" "Xarriiqdu way ku duldhacdaa sallaxa" "Sida sallaxa oo ah Gabal warqadaha. • Ku hoggaami Ardayda in ay Tilmaamaan walxo dulsiman leh sida warqadda, dusha sanduuqa, IWM. Isla markaana ay ku xidhaan (la xidhiidhiyaan) sharraxna ka bixiyaan macnaha "Sallax". • Fursad u sii Ardayda in ay sharrax ka bixiyaan Meesha ay Hal Bar kaga dhacdo sallaxa, iyaga oo ku dhawaaqaya "Bartani way ka sarraysaa, way ku dul dhacdaa ama way ka Hoosaysaa sallaxa" (Sallaxa u qaado Gabal warqadaha).	• Weydii Ardayda in ay sawiraan xarriiqo Barbaroo ah iyo xarriiqo isku Qotoma si ay uga caawiso xarriiqha Toosan. • Weydii ardayda in ay ku Tusaan Tusaaleyaal ku saabsan "Sallaxa" iyaga oo adeegsanaya walxo. • Weydii Ardayda in ay sharraxaan xidhiidhka Bared ama meeleed ee ka dhexeeya Baraha, xarriiqaha Toosan iyo sallaxyada.

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
• Qeexidda wareegga shaxannada sallaxa. • Raadinta wareegga laydiga iyo labjibbaaranaha. • Isbarbadhisidda Bededka Laydiyada iyo labajibbaaraneyaasha iyaga oo adeegsanaya cabbir Qiyaas ah sida Labajibbaaraneyaal yar-yar. • Raadinta Bedka laydiga iyo labajibbaaranaha. • Adeegsiga cabiraada, sida Tirada labajibbaaraneyaasha yar-yar. • Furfurista weedh-xisaabeedyada ah wareegga iyo Bedka laydiga iyo Labajibbaaranaha.	wareegga iyo Bedeka Laydiga iyo labajibbaaranaha. (7 Xiso)	• fursad u sii Ardayda in ay cabbiraan wareegga dheskiyadooda iyaga oo adeegsanaya mastarad iyo Dun. • Ku hoggaami Ardayda in ay Furfuraan weedh-xisaabeedyada ku wajahan Raadinta Wareegga. • Ka caawi Ardayda in ay sawiraan Labjibbaaraneyaal yar-yar ama ay Isticmaalaan warqadda labajibbaaran. Si ay isu barbardhigaan Bededka laydiyada iyo labajibbaaraneyaasha kala duwan. • Ka caawi Ardayda soo saaridda Bedka laydiyada iyo Labajibbaaraneyaasha iyaga oo Tirinaya labajibbaaraneyaasha yar-yar. • Ku hoggaami Ardayda in ay Furfuraan weedh-xisaabeedyada ku saabsan Bedka iyo wareegga laydiga iyo labajibbaaranaha.	• Sii Ardayda Mas'alooyink u saabsan Raadinta Wareegga laydigaa & Labajibbaar anaha. • Weydii Ardayda in ay is barbardhigaan Bedeka Laydiga iyo Bedka labajibbaarana ha.
• Ka soo socidda Deggaankooda Adkeyaasha sida saddexijibbaarane, Dhululubo, Toobin &	Adkeyaasha Fudud. (5 Xiso)	• Soo ururi oo keen Fasalka dhexdiisa Qaarka mid ah wal xaha Tusaale u noqon kara Adkeyaasha sida	• Weydii ardayda in ay sharrax ka bixiyaan waxyaalaha ay ku kala duwan

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
Isfeer. • Soo soocidda waxyaal;aha ay iskaga mid yihiin iyo kuwa ay ku kala duwan yihiin Adkeyaasha Fudud. • Sameynta Moodheellada Adkeyaasha Fudud.		Qolofta Taraqal (kibriidka), Baakado, Daasad, kubbad, Toobin, Laf-Laadhuu IWM. Kadibna u sharrax Ardayda mid kasta Magaca loo yaqaano xisaab ahaan. • Fursad u sii Ardayda in ay sharrax ka bixiyaan Qaabka wal xahaas waxa ay iskaga mid yihiin iyo waxa ay ku kala duwan yihiin. • Ku hoggaami ardayda in ay sameeyaan Moodheellada Adkeyaasha kala duwan, iyaga oo adeegsanaya walxdaha si Fudud looga sameyn karo Adkeyaashaas sida silig, xasow, Straws and Thread isla markaana ka sameynaya shabaqyo sedan kuwan Hoose.	yihiin saddexjibbaara naha, Dhululubada, Toobinka Isfeerka IWM. • Weydii Ardayda in ay walxaha laga helo Deggaankood maalin kasta ay ku magacaabaan Adkeyaal badan. • Weydii Ardayda in ay sameeyaan Moodhee Lada Adkeyaasha.

Cutubka 6^{ad} :- <u>WAQTIGA (AMMINTA) (9 Xisadood)</u>

Ujeeddooyinka Guud ee Cutubkan:-

Cutubkani marka uu dhammaado kadib, Ardaydu waxay awood u yeelan doonaan (Awood u yeelan karaan).

- Sharxidda xidhiidhka ka dhexeeya saacaad, Daqiiqaddaha iyo ilbiriqsiyada.
- Isku bedelidda Halbeegyada Waqtiga.
- Isbarbar dhigidda Halbeegyada waqtiga.

Xisaabta Fasalka 4^{aad}

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
Ardaydu waa in ay Awood u yeelankaraan:- • Sharxidda Ilbiriqsigu in uu yahay Hal beegga waqtiga. • Sharxidda xidhiidhka ka dhexeeya Saacadda Daqiiqaddaha iyo Ilbiriqsiyada.	6. **WAQTIGA** Saacaddaha, Daqiiqaddaha iyo Ilbiriqsiyada. (3 Xiso)	• Fursad u sii Ardayda iyaga oo lammaane ah in ay saacaddaha ka soo soocaan Ilbiriqsiyada (seconds). • Ku hoggaami Ardayda in ay daahfuraan xidhiidhka ka dhexeeya saacadda, daqiiqaddaha iyo Ilbiriqsiyada, iyaga oo adeegsanaya saacad.	• Weydi Ardayda in ay sameeyaan shax muujinaysa xidhiidhka ka dhexeeya saacad, daqiiqaddaha iyo Ilbiriqsiyada.
• Isku bedelidda Halbeegga waqtiga ee ugu weyn oo loo bedelayo kuwa yar-yar. • Isku bedelidda Halbeegga waqtiga ee ugu yar oo loo bedelayo kan weyn. • Isugeynta iyo kalagoynta Halbeegyada waqtiga.	**Xisaabinta halbeegyada waqtiga.** **(3 Xiso)**	• Fursad u sii Ardayda in ay ka shaqeeyaan layliska Iskubedelidda saacadda oo loo bedelayo Daqiiqado, saacadda oo loo bedelayo Ilbiriqsiyo iyo Daqiiqaddaha oo loo bedelayo Ilbiriqsiyo. • Ka caawi Ardayda in ay ka shaqeeyaan Laylisyada ku saabsan Isku bedelidda Halbeegyada waqtiga ee yar-yar oo loo bedelayo kuwa waaweyn sida Ilbiriqsiyada oo loo bedelayo Daqiiqaddo iyo Daqiiqaddaha oo loo bedelayo saacaddo.	• Weydii Ardayda in ay saacadda iyo Daqiiqaddahaba u bedelaan Ilbirqsiyo. • Weydii ardayda in ay ka shaqeeyaan Isugeynta iyo kalagoynta Halbeegyada waqtiga.

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
• Isbarbardhigidda cabbiraadda Halbeegyada waqtiga ee kala duwan. • Furfurista weedh-xisaabeedyada la isku barbardhigayo Halbeegyada waqtiga.j	Isbarbardhigidda Hlbeegyada waqtiga. (3 Xiso)	• Fursad u sii Ardayda in ay Isbarbardhigaan Halbeegyada waqtiga iyaga oo adeegsanaya shaxda Iskubedelidda Halbeegyada wagtiga sida:- "2saac, 30 daqiiqdood iyo 6000 Ilbiriqsi keebaa ugu dheer. • U Horseed Ardayda in ay ka shaqeeyaan Mas'alooyinka ka Isbarbardhigidda Halbeegyada waqtiga sida:- "labadan Ardayd kee baa hor Tegaya Gurigiisa? Haddii Ardayga 1aad uu ka dhaqaaqo Dugsiga markii saacaddu ahayd 9saac oo alabnimo, isla markaana uu ku Tago Gurigiisa muddo 30 daqiiqadood ah. Ardaydyga 2aadna uu ka soo dhaqaaqo Dugsiga markii saacaddu ahayd 6saac oo Duhurnimo isla markaana uu ku Tago Gurigiisa muddo dhan 2Saacadood iyo 15 Daqiiqadood? Sidaas oo kale ay soo saaraan farqiga waqtiga ay Guryahooda ku Tageen.	• Weydii Ardayda su'aalo ah Isbarbardhigidda Halbeegyada waqtiga oo kala duwan. • Sii aRdayda Laylisyo ka kooban Mas'alooyin kusaabsan waqtiga laguna Adeegsanayo Halbeegyada kala duwan ee waqtiga.

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta

Cutubka 7^{ad} :- <u>URURINTA iyo HABAYNTA XOGAHA</u> (10 Xisadood)

Ujeeddooyinka Guud ee Cutubkan:-

Cutubkani marka uu dhammaado kadib, Ardaydu waxay awood u yeelan doonaan (Awood u yeelan karaan).

- Dhisidda Garaaf-laydiyeedka iyaga oo adeegsanaya Xogaha la soo ururiyey.
- Sharraxidda xogaha lagu muujiyey Garaaf Laydiyeedka.
- Raadinta (soo saarista) celceliska ilaa 4 Tiro oo Tirooyin idil ah.

Xisaabta Fasalka 4^{aad}

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
Ardaydu waa in ay Awood u yeelan karaan:- • Uruinta iyo Habaynta Xogta • Dhisidda Garaaf-lay- diyeed ka Fudud ee xogtaas la soo	**7. URURINTA IYO HABAY NTA XOGAHA** Dhisidda garaaf Laydiyeeka (3 xiso)	• Fursadu sii Handayda in ay soo ururiyaan xogta laga doonayo sida khudaarta ay ka helaan marka ay soo ururiyaan ay ku muujiyaan carat- lay diyeed fudud	• Weydii Ardayda in ay xog kazoo u ruryeen Guueay hooda sida Titada labka iyo Tirayda Dhadiga ku Nool Gurayagooda ka Dibna ay ku MuuTiyan Gantaa –layda Yeed Furud
• Sharraxidda xogta ama macluumaadka ku muujisan caraaf –laydi yeedka. • Soo saaridda Celceliska 2 Tiro Soo saaridda Celceliska 3 Tiro. • Soo saardidda Celceliska 4 Tiro	**7.2 . Celceliska ilaa 4 Tiro.** (4 Xiso)	• Ka soo qaado Joor naalada ama hay'addaha Dawladda garaaf laydiyeedyo Fudu sida waxabarshada kadibna weydii Ardayda iyo soo koox-koox ah in ay shaarrax ka bixiyaan caraaf-la y diyeedka Fuduud ee la siiyiy.	• Weydii Ardayda in ay Tarjumaan (sharraxaan) xogta aad ku soo muujisay GaraafLaydiyeedka ee ah Tirada madaxyada iyo Tirada xarash ka uu u dhacay kummiaad Tuurtay.
•	**7.3. Celceliska ilaa 4 Tiro.** (4 Xiso)	• Fursad u sii Ardayda inay Raadiyaan celceliska laba (2) Tiro sida Dhibcaha ay ka keeneen	• Sii ardayda laylisyo shaqo Guri ah oo ku saabsan soo saarista ama Raadinta celceliska 2, 3, iyo 4 Tiro oo Tirooyin idil ah.

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
		xisaabta iyo sayniska. • Ka caawi Ardayda inay Raadiyaan celceliska saddex (3) Tiro sida Dhibcaha ay ka keeneen Imtixaankii 3-da Maaddo ee xsaabta, sayniska iyo Ingirksiga. • U Horseed ardayda inay Raadiyaan Celceliska Afar (4) Tiro sida Dhibcihii ay ku guulaysteen (ka keeneen) Imtixaankii Afarta maaddo ee kala ah xisaabta, sayniska , Ingiriisiga iyo Af-Amxaarka.	
• In ay sheegaan sababala dhaliya baytimaalidda biyaha. • In ay tilmaamaan saameynta ay leedahay baytimaalida biyaha. • In ay tusaan hababka loo isticmaalo dhaqaale	**24. Baytimaalka Biyaha** **(3-Xisadod)** • Sababaha iyo saameynta. • Istimaalidda biyaha dhaqaale ahaan. **25. Diqawga biyaha (4-Xiso)** • sababaha dhaliya diqwga biyaha	➢ Ardayda waa inay cilmi baadhid ku sameyso midhadha sida fican ugu baxa meel roobku uu aad ugu da'o iyo meel waraabin ku baxda labadaa melba waa inay ka hawlgalaan. Waa inay ka doodaan matooraba biyaha soo tuura si loogu waraabiyo midhaha beeraha. ➢ Ardayda waa inay qiimeyso isticmaalka biyaha iyagoo barbardhigaya qaababka kale ee gaadiidka ➢ Habka biyaha aygaaiidku u dhex musheexaan way ku kala duwan yihiin wadamaada, iyadoo ay ku xidhan tahay khayraadka biyaha	

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
ahaan biyaha. • Inay sharxaan saameynta diqawga Biyaha. • Inay sheegaan hababka looga hortago digawaga biyaha. • Inay tilmaan hababka loo xafidaya inyaha. • Inay muujiyaan hababka biyaha loo xafido.	sida; Qashinka xoolaha iyo warshdah. • Saameynta diqawga biyaha sida uu u saameeyo caatimaadka iyo nafleyda biyaha kunool. **26. Hababka Biyaha loo xafido (5 Xiso)** • Biyaxidheeno baraaga • Dhireeyn • Beeritaa fiican sida waraa binta iyo seexisyo	halayo ➢ Ardayda waa inay tixgaliso qodobadaas ee isiyaha lahelikara ah ku habboon warshadaha, ama xarumaha beer abuurka, xilliga laqaadanayo, qiima iyo saameynta deegaanka. ➢ Koox ardayda ka mid ah, waa inay caddecyaan warshadaha deegaan kooda laga helo, oo ay helaan biyaha culus ee loo adeegsado. Waa in koox waliba ay diyaariso shan 95) daqiiqo oo soo Jeedin ah, sida warshadaha ay biyaha muliimka ugu yihiin. ➢ Si loo sawiro isticmaalka biyaha inay yihiin mile ardayda u ogolaw inay keenaan tusaalayad bodan oo ah walxaha taas oo ay biyuhu milaan ama ay eek u saabsan hawlaha kala duwan. ➢ Ardayda waa inay tixgaliso saddex arimood oo biyaha baytimaalka ah lagage faa'iidaysahayo; xilliga roobka biyo badan oo daadad ah ayaa wabiyada ku dara iyo horooyinka ama badaha side baan qeybo kanid ah u keydin karaa sanado badan xilliyada diraacda? Waxay ka fikiri karaa ardaydu meelaha lagu keydin karo iyo waxii faa'iido ah iyo faa'iido daro ah ee ka soo bixi karo isticmaalkooda. Biyaha lakeydiyay ee u daadaaya qasabadaha listicmaalo, side baynu qeybaha ka lumaya keydaatkaa iyo sidi loo yareyn karo? ➢ Ardaydu waa in ay baadho kaydka biyaha iyo qalbka biyaha iyo inay aqoonsadaan meelaha ay biyuhu ka liiayaan (ka daadanayan) iyo inay soo bandhigaa wixii in laqabto ay taay si looga fogaado khasaare biyaha ah. Side qeys waliba ama shaqsi walba ay u yoreyn karaan qadarka biyaha baytimaalaya? ➢ Ardayda waa inay aqoonsato habka ay biyuhu looga baytimaaliyo guryaaha sida; qasabadda biyaha oo ligla ama go'bo leysa aan ladayac tiring, biyaha qulqulaya oo wax laga dhexmeydho meeshii intaa weel llagu qaato	

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
		baal laga dhaqilahaa; qasabada biyaha oo furan oo laga tago IWM. Ayna keeni kara khesaaro xagga biyaha ah. ➢ Ardaydu waa inay sameeyaan talo bixino dayactirid habboon ah sida; in labedelo qasabadaha xumaada ee biyaha habaya iyo in sificanlooqabatimo haqaajinta iyo isticmaalka qalabka biyaha sida; in qasabada durbadiiba laxidho marka biyaha laga dhaansado. ➢ Ardayda waa in ay barato in biyaha muddo badan yaala guryaha aan durba la'isticmaali ay sii wanaagsanaanayaan ee wey xumaanayaan. ➢ Ardayda waain ay listo qoraal ah ka sameyso ilaha biyaha baytimaalka ah ee daaankooda ka jira. Sida; biya musqulaha ee qaadaya bilaacadaha guryaha, biyaha wax lagu nadifiyo ee lagu karsado IWM waa inay sidaa kale bartaan in ay iraan ilaha diqawgabiyaha ay ka mid yihiin. Daad ku furma beerala iyagaa wada walxaha kimikada ah ee lga beeriyo dhul-beereedka oo uusan dhulku nuugin. Wasaqka timaadda warshada leh. Neefo wasakheysan oo ku milmay hawada si ay u soo saaro ama ay ka soo da'aan roob-aysidheed. ➢ Ardayda waa inay baadho saameynta digawga biyaha iyagaa isticmaalaya ley bareeriyada iyo ilaha kale ka helikaraan xogta.waa in lasiiyo ardayda Ereyada furaha ah; sida Bullaacada, Roob-ay sidheed, digawga dhulbeereedka, oo ufiirsadaan saamaynta diqawgooda, waa in ay doortaan hal muuqaal oo diqan biyoodka ah oo ay qoraan warbixin ka saabsan sababaha iyo saamaynta iyo sida looga hortagayo diqawg. ➢ Ardayda waa in ay booqdaan dhal biyoodka diqoobay ee deegaankada,. Waa inay iska deeyaan hubsiimada sababaha diqawga, ay u fiirsadaan saamaynta diqahga inuu leeyahay noolayaal ku nool biyahaes iyo dhulka ku wareegsan iyo inay soo bandhigaan sida	

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
		digawga loo daaweyn lahaa.	
		➤ Ardayda waa inay sameyso baadhid fudud iyagoo adeegsanaya muunad biyo diqoobay ah iyagoo barbardhigaya biyo nadiif ah. Waa inay barbar dhigaan astaamaha ay ka midka yihiin nadiifta iyo urtooda.	
		➤ Ardayda waa in ay booqato goobaha biyaha lagu daweeyo oo ay ogaadaa sida biyaha caydhin ee wasagoobay loogu bedelo biyonadiifda u keenin.	
		➤ Ardayda waa in ay ka doodaan si ay u sharxaan sababala ay goobuhu u kala helaan da'aaga roobabka, laakiin, haddana ay ka jirto dhibta abaaraha. Waana in laga hago ardayda fikirka ah roobkuba diin ama uu yeryahay, oo ah xillia diraacda.	
		➤ Weydii ardayda inta xaddii ee sanadkiiba baytimaasha iyo inta lakeydin karo, biyaha.	
		➤ Ardayda waa in ay aqaansadaan hawlaha keydinta biyaha iyo inay helaan Jooga biyaha xiliga roobiibka ay da'aan iyo dhamaadka diraacdaba.	
		➤ Iyaagoo bartaas ka sii amboqaadaya waa in ay qiyaasaan xadiga biyaha leisticmaalay/	
		➤ Ardayda waa in ay cabbirto heerkalka carada medo kala duwan, qaar ay ku dhacayso qoraxdu, qeybo kale ay dabadaan xamashka ama xaabshaaan. Waa in ay le'xidhiidhiyaan heerkulkacarada si loo ogaado xadiga biyaha ah ee kaluma oogada sare iyagoo liumi baxaya iyo si looga soo dhiraan dhiriyo inay biyuhu ka uumi bixid yaryihiin kuwa dulka kuwa oogada marka ay daboolaan dhirta iyo keymahaba.	
		➤ Ardayda waa in ay xaddi caro ah ay namuunad uqaadato si ay tusaale ugu noqoto Babaca-buurta soconayana ilaa gunta buurta, waxaad ku shubtaa biyo xariiqii aad ka soo dillacisay babaca adigoo ka dhigaya biyoroob oo kale, u fiirso sida ay biyuhu uqulqulaan iyo sida saxarrada carada ah ay biyuhu u sii qaadayaan iyagoo geynaya gunta buurta.	

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta
		Habka waa in aad ku celisaa, laakiin, xiligan waa inaad gudub u dillaacisaa dhulka tijaabada saddexaadna waxaa lagu sameyn karaa iyadoo dhulka laga dhigo seexigyo, kadibna waa in loo fiirsado sida ay biyauhu u saconayaan oogada dhulka iyo caro qaadidooda.	

Ujeeddooyinka gaarka ah ee casharka	Ciwaanada Cutubka qaybaha iyo Casharada	Wax-qabadyada Baris-barashada iyo Qalabyada loo baahan yahay	Tallaabooyinka Qiimeynta

Qiimeynta Cutubka

→ Kii hore Guri
→ Ardayda gaadhay heerkii shaqo ee looga baahnaa;

Ardayda heerka joogta waxay awoodi doonaan ; inay liisto ka qoraan oo ay aqoonsadaan noocyada biyaha dabiiciga ah iyo inay sheegaan farqiga udhexeeya biyahaas; inay qeexaan iyo inay tasaalayaal ka bixiyaan iskudhiska iyo inay biyaha u aqoon sadaan iskudhis; inay qeexan iyoinay tusaale ka bixiyaan ogsaaydhyada iyo inay muujiyaan ogsaaydhyada; inay sharxaan muhimada ay leeyihiin biyaha iyo inay sababaha iyo saameynta ay leeyihiin baytimaalinta biyaha sheegaan; Inay sheegaan sababaha dhalaya diqawga biyaha iyo inay sharxaan saameyntooda iyo hababkii looga hortag; lahaa; inay tilmaamaan iyo inay muujiyaan hababka biyaha loo xafido.

→ Guuriku hore
→ Guuri ku hore

Cutubka 3aad
SHIRTA (30 – Xisadood)
Maxbunlka Cutubka: Ardaydu waa inay a woodaa:

- Inay sharxaan muhimadda ay u dhirta leedahay aadamiga iyo carada.
- In ay tilmaamaan waxtarka ay caradu u leedahay dhirta.
- Inay qeexaan caro-guurka iyo inay sheegaan sababaha iyo siyaabaha looga hortai hahaa caroguurkaas. Inay qeexaan Bacrinta,aay sharxaan muulimadeeda iyo Abla-ableynteeda look ala qeybinayo dabiici iyo sanaaci. Inay diyaariyaan bacrinta (manure) xoolaha si loo isticmaale beerta dugsiga. Inay isbarbar dhigaan dhirta markii hore dalka ka taalay iyo haatan sida ay yihiin keymuhu, aay seegaan sababaha iyo cidhibta ka dhalata xaalutka iyo inay tilmaan habadka laga seero dhirta ama lagu xafido
- In ay sameeyaan dhireyn, midho baxaya iyo inay muujiyaan hababka loo ilaaliyo midhaha beeraha iyo in dhirta lagu beero dugsiga. Inay tilmaamaan farsamada noolaha looga soo saaro neetaha lashito oo bedel ka noqon kara tamarta.
- In ay sare uqaadaan dhireynta barbaarinteeda gudaha dugsiga iyo hareerihiisaba, aay abnuraa midho baxaya, iyo in ay tilmaamaan sidii loo ilaalin lahaa midhaha baxaya. Inay sharxaan saameynta uu heeyaha daaa (Harameynta) ka dhex baxa beerta sida uu wax u yeelayo, aay bixiyaan tusaalaayin guud, iyo inay tilmaamaan hebabka loo ilaalinaya midhaha.
- In ay ka doodaan saameynta dhibta leh ee ay leedahay keymaha dabka lagabadsiinayo iyo xaaliutinta kaymahaba. Inay soo bandhigaan xirfad cilmiyeed baadhid ka dhisan aay ka mid yihiin; utiirsashada, Abla-ableyta, sameynta maadhalada, cabbiraadda, isgaadhsiinta, sii aalo weydiinta, Dabaqaada fikradaha iyo laxidhiidhinta saqmeynta iyo sababaha.

Ardayda waxay awoodi doonaan:-	3. Dhirta 3.1. Muhimada ama waxtarka Dhirta (3 Xiso)	➢ Ardayda waa inay aqoonsato tusaalooyinka dhirta kuwaa oo diyaariya isticmaalada kala ah; cuntada; Daawada; Dharka; hooyga; Qalabka guryala IWM
• Inay sharxaan mulimada		➢ Ardayda hasameyso baadhid oo ku saabsan dhirta baxaysa si loo cuno, oo goobta laga beerana ay ka soo baxdo cuntada qeyska iyo midhaha loo beero in lagada oo la'suuq geeyo.
		➢ Ardayda waxay heli karaan waxyaaba badan oo daawad dhirta a, taas oo ka baxda dagaanka uu dugsiga ka yaala. Waa maxay dhirta la isticmaale, sida loo habeeyo si looga helo daawooyinka iyo waxa uu yahay cudurka loo isticmaala daaweyntiisa? Maxsuulka baadhidan ka soo baxda ee ardayda oo dhan waa in meel la isugu geeyo, oo laga dhigo asaaska xogta la helay.
		➢ Ardayda waa in ay ogaato waa in lagu baaruujiyo in dhirta ay dayac tirto cimilada caadiga ah. Arintaan waa inay muujiyaan iyagoo isbarbardhigaya cimalada goob layaqaano dagaanka si ay u helaan ardayda meel ay dhirteedu badqabto oo haysata cimilo iyo midkale ama goobkale o dhirtu ku yartahay ama aynu jirinba, waana inay u fiirsadaa isbedelka udhexeeya.
• Inay sharxaan muhimada ay carada u leedahay dhirta. • Inay tilmanamaan muuqaalaka carada aay laxidhiidhiyaan waxtarka ay u leedaha ay dhirtainay qeexa an in carayaraanta ay tahay macdantiidusha.	3.2. Carada iyo Dhirta (5 Xiso) • Muhimada ay caradu uleedaay dhirta • Sarada sameyskeeda • Yoraanshaha carada sababaha iyo kahortaga.	➢ Ardayda waa inay siibaan dhir kala duwan oo ah dhirta dagaanka si ay u tijaabiyaan habab xidhideedkeeda oo u arkaan sida xididada ay u haystaan ama uga dhaggan yihiin carada. Waa inay baadhaan goobaha ayna dhirtu ku badneyn, sababtoo ah, daaqid lagu xaalutiyay ama sababa kale, iyo inay u fiirsadaan natiijada carro-guurka. Tan waa in la'laxidhiidhiyo shaqada lagu sameynayo xafididda biyaha ee cutubku hore.
		➢ Ardayda waa inay aqoon sato dhirta loo abuurto uboxa si ay wax u soojiidato.
		➢ Ardayda waa inay dood kooxeed sameyso sababaha dadka ugu sameysto dhita qurxin iyo farxad laga soo dhiraan dhiriyay eegmadeeda.

		➤ Ardayda waa inay habeysaa dhireyn iyo dayectir ubaxeeda ah iyo caleemahelda iyadoo dhireynta lagu wareejinayo dugsiga si deegaanku u wacnaado.
		➤ Ardayda waa inay barato in caradu tahay dhexyaalka ay dhirtu ku baxdo.
		➤ Caradu dhirta waxay ka heshaa daganaan iyo biyo ay ka nuugto iyo macdano kala duwan oo bixidda dhirta muhiim u ah.
		➤ Ardayda waa in lagu baraarujiyo saddex nooc oo muhii ah oo carro ah; carada bacaadka; carada loomida; iyo canamadawda ama kaleyda iyo waliba astaama hooda. Waa inay ka doodaan waxtarkod iyo waxtar la'aan tooda mid waliba uu leeyala.
		➤ Ardayda waa inay baadho sameyska carada iyaga caroku ridaya weel kuna daraya biyo, iskuna qasaya iskudarkaas oo marka danben u kaadinaya inta uu kala dagayo.
		➤ Waxayna arki doonaan la kabyada carada oo kala sareeyo iyagoo saxarro ah iyagoo ah saxarro waa weyn oo gunta dagaysa iyo saxarro yaryar oo xagga sare sabbeynaya. Saxarada Huumaskana waxay sabbeynayaan dusha sare.
		➤ Ardayda waxay baadhi karaan astaamo kaleduwan oo ah carada. Inta biyo ah iyadoo la'ingajinayo taas oo looyagaano cufka foorneynta 100^{0}C.
		➤ Inta huyuumaska ah
		➤ Iyadoo la kululeynayo loona yaqaano cutka ingeega carda tanag dabool leh iyo shaalad kululeeye ah.
		➤ Inta hawada
		➤ Iskuir $50cm^{3}$ iyo $50cm^{3}$ oo biyo iyo inay cabbiraan wadarta mugga
• Inay qeexaan Baetinta. • Inay sharxaan muhimada Beerinta. • Inay u abla-ableeyaan bacrinta	3.3. Saxarada carada ee waxtarka leh. (5 Xiso) • Bacrinta iyo Adeegsigeeda.	➤ Saxarada ku baahsan baaxaddooda ➤ Iyado lamarinayo mug lagaqaano oo carro budo ingagan ah miirayaal taxane ah. ➤ Inta ay tahay biyo xajinteeda ➤ Iyadoo muddo lasiinayo ay ku maraan biyaha safcarroo ah. Tijaabaaynkaasi waxaa lagu

Dabiici iyo sanaaci. • Inay diyaariyaan isticmaalka baarinta xoolha (Digadooda) oo loo adeegsado Jardiinka dugsiga. • Isbarbardhigga dhirta Deegaanka xilligii hore iyo Haatan. • Inay sheegaan sababaha xaalufinta dhaliya • Inay tilmaamaan natiijada ka dhalata xalufinta dhirta. • Inay tilmaamaan hababka loo xafido koymaha. • Inay ka sameeyaan dugsiga iyo hareertasa dhireyn. • Inay beeraan midho kala duwan dugsiga dhexdiisa. • Inay soo bandhigaan hababka lagu ilaaliyo midhaha. • Inay bixiyaan tasaatooyinka caanka ah ee saaqa. • Inay sharxaan saameynta saaqawaxyeeladiisa. • Inay Tilmaamaan hababka loo xakameeyo (kaantarada) saaqa	• Abla-ableyinta bacrinta. • Sameynta cabiridda (sameyska) **3.4 Dhirteena : Dhibta iyo xafidideeda (5 Xiso)** • Taariikhda Dhirteena • Xaalufinta sababaha iyo saameynta. • Xafididda keynta • Mashruucdhir eyn • Walxaha nool oo laga dhaliyo tamar Tir hore badasha. **3.5. Dhirta oo kor loo soo qaado** Barbaarinta iyo bixinta dhirta (6 Xiso) • Ilaalinta midhaha **3.6. Saaqa iyo koontaroolkiisa** (x Xiso) • Tusaalooyinka saaqa. Caanka ah • Waxyeelada saameynta saaqa uu leeyahay. • Ilaalinta hannaan ka saaqa.	sameyn karaa halnaac oo carro ah ama carrooyin kala duwan oo natijada ka soo baxda la isbarbar dhigo. ➢ Shaqada yaraanshaha carada waxaa laha xidhidhiy karaa shaqooyinki hore ee biyo haynta iyo sida ay muhiin ugu tahay dhirta. ➢ Ardayda waa inay awaadan inay sharxaan sida roobku uu u meydho oogada sare ee carada iyo sada wax lagaga qaban karo in si gudub ah loo talo beerta iyo into sameeyo biyaha seexisayo ay ku hakadaan. ➢ Ardayda sidaa kale waa inay awoodaa inay sharxi karaan sida dhirta ay xididada ugu xajisato carada iyo sida dahaarka ay uga lunto, taas oo sababta tahay xaalufinta daaqa, taas oo dhalisa caro-guur. Waxaad raacisaa dada sida dabayshuna u keento carro-guurka. ➢ Hoos u dhicidda carada side kale waxaa hala xidhidhin karaa hawlaha dadka ay sameeyaan Tusaale; dhirta iyo keymaha lajaro iyadaa a/waax iyo xaabo iyo dhismayaal kale laga dhigto, taas oo keenta in ay caradu weyda hooska dhirta lajaray, kadibna cadceedu ku dhacdo, dabeyshuna ay si fudud ugaado , carraguurna uu kudhaco dhulkaa dhirta laga qadoiyay. Ardayda baadhiidooda ha'ka si wedeen deeaamadaada. ➢ Ardayda waa in la'ogeysiiyo inay dhirta u baahan tahay macdano kala duwan si ay u baxdo, caafimaadkeedana u waaro. Waxayna ka heshaa macdan taasi carada. Waaxa inay baadhaan macdanta ay aadka ugu baahan tahay iyo inta ay waxyar uga baahantahay si ay ubaxdo dhirta. ➢ Ardayda waa in loo sheego inay jiraan laba nooc oo Bacrinta ah; wuxayna kala yihiin Bacrinta Dabiiciga ah iyo Bacrinta kimikaad ee sanaaciga ah. ➢ Ardayda waa inay baadho noocyada kala duwan ee digasha xoolaha ee loo adeegsada Bacrinta, sida ay u yihiin waxtar. ➢ Ardayda waa inay baadho sidoo kala noocyada kala duwan ee bacrinta kimikaad sida; yhuriyada, Amoonyamta naytarayda iyo bootaashiyam salteyda ➢ Ardayda waa inay fahmaan waxa loola seedo

		bacrinta NPK-da iyo inay fahmaan waxtarka tiro ahaan sida ; 20.10.40, oo kuqaran Bacrintaas.
		➢ Baruhu waa inuu soo bandhigo amoonyam naaytareyd iyago isku qasaya xadiyala mid ah Amooniya iyo Haydarookalooyrig Aysiidha iyagoo milanka wumiibixinaya si uu u in gaga
		➢ Ardaydu waxay ka doodi karaan waxtarka iyo waxtar la'aanta ay leeyihiin labada kooxood ee Bacrinta leedahay.
		➢ Isticmaalka farabadan ee Bacrinta kiimikaad waa ilaha ay ka dhashaan diqawga Biyaha.
		➢ Ardayda waa inay ka sameyso tuulimalad xagga gariga ama xagga dhugsiga inay dib ugu soo celiso nafaqada dhirta xumaatay oo lagu tuulo meelahaas. Waana inay ka doodaan sameyska walxahaas; waana inay ka ogaadaan walxahaas xogooda;
		➢ Waxtarka ay leeyihiin tuulimaadkaas sida ay hawada uga midnogonayaan. Waxa uga wacan biyaha inay laga mamaarman ugu noqotay biyaha. Saqada tuulimaadka dadajiyayaalka.
		➢ Ardayda waa inay baadhi karaan kharidadihii hore ama ay faahfaahiyaan goobala ay daboolaan keymaha deegaanka xilligan iyo xilligi hore.
		➢ Waa inay sameeyaan qiyaas wadarta badka ay dhirtu dabaashay xiligii hore iyo xaga in laga qiyaas xalufinta ku dhacda.
		➢ Xaalufinta waxaa lala xidhiindhin karaa shaqadii hore looga soo qabtay xafididda biyaha iyo caraguur ku
		➢ Ardayda hore waxaa looga baraaxajiyay gooynta dhirta laga sameynayo xaabada dabka, dhismaha, dagaameynta iyo hawlaha bacraha. Natiijada xaafufinta dhirta waxaa kamid ah.
		➢ Hoos udhaca carada iyo caroguurkeeda.
		➢ Sabooyinka oo tirma ay waayaan dhirta iyo xodala
		➢ Lumidda dhirta laga helo cuntada iyo daawoo yinka
		➢ Ardayda waa inay qorsheeyaan hab laga maamulokeymaha sida looga saaro looxa iyado ayna caradu hoos u dic