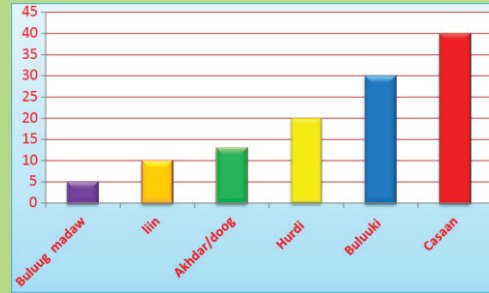


Cutubka

4aad



XOG-URURINTA

UJEDDOOYINKA CUTUBKA

Dhamaadka cutubkani waxaad awoodi doontaa inaad

- ✚ Ka samayso garaaf-laydiyeed xog lagu siiyay.
- ✚ Turjunto (akhridaa) garaaf-laydiyeed la sameeyay
- ✚ Sharaxdo waxa looga jeedo cel-celiska urur tirooyin ah.
- ✚ Xisaabiso celceliska xog lagu siiyay.

TUSMOOYINKA MUHIIMKA AH

4.1 Faahfaahin badan oo dhisida iyo turjumida garaaf-laydiyeedka ah

4.2 Celceliska tirooyinka

Erayada furaha ah

Soo koobida

Laylisyada guud

© M...
Not to

HORDHAC

Xog ururintu waxay la xidhiidhaa ururinta warbixinta iyo soo koobidiisa, cutubkan waxaa loogu talagalay inuu bixiyo aqoon aasaasiya oo ku saabsan xogta iyadoo la adeegsanayo garaaf-laydiyeed iyo xisaabinta celceliska ee xog lagu siiyay. Waxa jira tusaalayaal iyo laylisyo shaqo fasal ah, kuwaas oo kaa caawinaya inaad adeegsato aqoonta aad ka hesho nololmaalmeedkaaga maalin laha ah.

4.1 FAAHFAAHIN BADAN IYO TURJUMIDA GARAAF LAYDIYEED

Hawlgalka 4.1



- 1 Maxaad uga baahan tahay inaad xog muujiso adigoo adeegsanaya garaaf-laydiyeedyo?
- 2 Waligaa miyaad aragtay garaaf-laydiyeedyo lagu dhajiyay darbiga Xafiiska iskuulkiina?
- 3 Guuri (naqil) shaxdan soo socota oo ka buuxi tirada saacadaha aad todobaadkii hore waxbaratay?

maalinta	Tirada saacadaha wax labartay
Axad	
Isniin	
Salaasa	
Arbaca	
Khamiis	
Jimce	
sabti	

- 4 Muuji saacadaha wax barashada adigoo adeegsanaya garaaf-laydiyeed.

Garaaf- laydiyeed waa shaxan kaas oo leh jiidimo laydi ah kuwaas oo dhererkoodu uu saamigal la yahay qiimaha ay u taagan yihiin. Sawirada garaaf- laydiyeedka waxaynu u firsanaysaa qodobadan soo socda.

- 1 Jiitimaha qaabka laydi ahi way is cabbir leegyihin
- 2 Jiitimaha waa lakala soocayaa waxaana loo dhaxaysiinayaa masaafad is ballac leh.

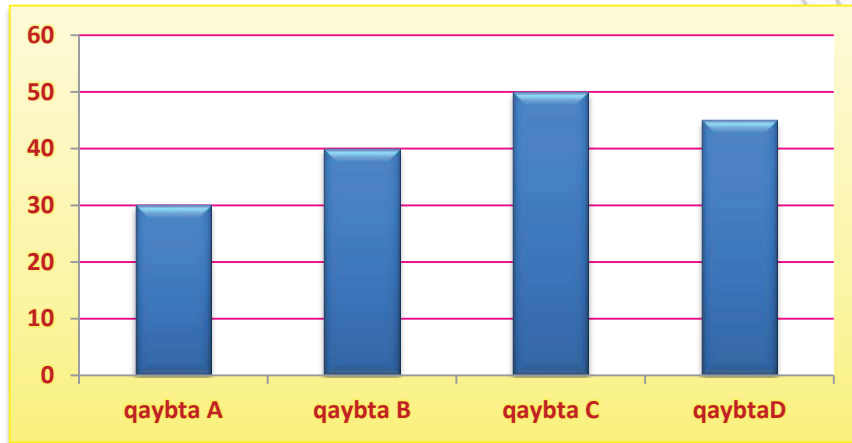
Garaaf- laydiyeed waxay faa'iido badan u yeelan karaa habab kala duwan

- 1 Xaqiiqa ka helida garaafku waa hal nooc ka mid ah fasirida (turjumida).
- 2 Isbarbardhiga xogta waa nooc kale oo fasiraada ah.

- 3** Inta badan xog baad ka qaadataa garaaf laydiyeedka oo waxaad u adeegsataa inaad ku xaliso dhibaatooyinka.

Tusaale 1: garaaf-laydiyeedkan soo socdaa wuxuu ina tusayaa tirada ardayda fasalada shanaad ee afar qaybood.

Garaaf- laydiyeedka ardayda fasalka shanaad.



Garaafka 4.1

Adigoo fiirinaya garaaf- laydiyeedka ka jawaab su'aalahan soo socda.

- 1** Imisa ardaybaa ku jira qaybta B?
- 2** Qaybteebaa ugu arday badan?
- 3** Imisa arday ayaa ku jira qaybta B oo aan qaybta "A" ahayn?

Furfuris:

- 1** Waxaa ku jira 40 arday oo fasalka shanaad ah qaybta B.
- 2** Qaybta C waxaa ku jira arday ka badan qaybaha kale.
- 3** Waxaa jira 10 arday oo dheeri ah oo qaybta B ah oo aan qaybta A, ku jirin.

Taasi waxa weeyi B waxaa ku jira 40 arday, qaybta "A" waxaa ku jira 30 arday.

$40 - 30 = 10$ "B" ku jira.

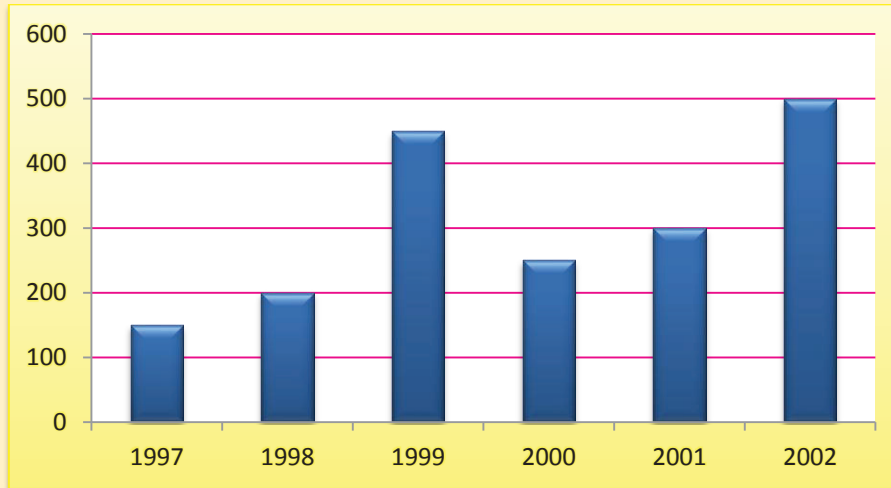
SHAQO KOOXEEDKA 4.1

- 1** Falanqeyna faa'iidooyinka soo bandhigida xogta ee garaaf-laydiyeedyada halkii shax laga isticmaali lahaa.
- 2** Ururiya xogta da'da ardayda fasalkiina, ku muujiya warbixinta aad ururiseen idinkoo adeegsanaya garaaf- laydiyeed, oo ka jawaab su'aalahan soo socda?



- b** Imisa arday ayay da'doodu tahay 11 sano?
- t** Imisa ardaybaa ay da'doodu u dhaxaysaa 12 iyo 14 sano?
- 3** Macaashka uu sameeyay shirkada A, ayaa waxaa lagu muujiyay garaaf-laydiyeedka hoose. Adeegso garaaf-laydiyeedka si aad uga jawaabto su'aalaha raacsan.

Macaashka ay samayso shirkada A



Garaafka 4.2

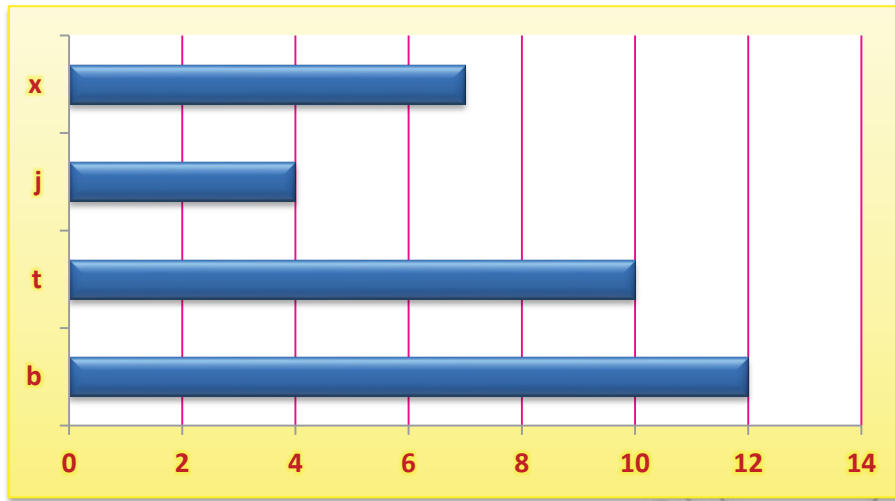
- b** Maxay ahayd faa'iidada ugu badan? Iyo waliba sanadkee?
- t** Waa maxay farqiga u dhexeeya faa'iidada ugu badan iyo ta ugu yar?
- j** Intee in leeg oo faa'iido ah ayay ka kordhiyeen sanadkii 2001, sanadkii kale ee 1998?
- Kh** Waa imisa wadarta faa'iidadu laga soo bilaabo 1997 ilaa 2002?



- 1** Marka la sameeyo garaaf laydiyeed waxaa fudud in la adeegsado xogta kadib marka lagu soo qoray ama la isugu soo dubariday shaxda.
- 2** Garaaf laydiyeed jiif ahaan.

Tusaale 2: shaxdan hoose waxay ina tusaysaa iibinta noocyo kala duwan oo qalimaan ah oo dukaan yaal. Sawir garaaf-laydiyeed jiifa adoo muujinaya xogta.

Nooca	Tiro	Tirada qalimaanta
b	### ## //	12
t	## ##	10
j	////	4
kh	## //	7



Garaafka 4.3

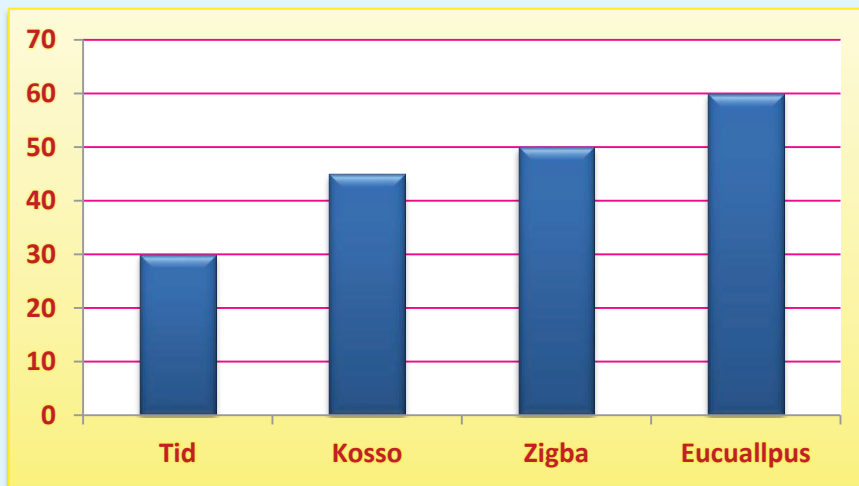
LAYLIS 4.1

1 Samee garaaf- laydiyeed ku saabsan bunka ay Itoobiya dhoofiso adoo raacaya xogtan hoos ku qoran.

sanadka	1970	1971	1972	1973	1974
Inta la dhoofiyo tan ahaan	220	250	300	340	430

- b** Labadee sano dhexdee ayay dhoofinta badani dhacday?
- t** Is-barbar dhig xogta sanadaha 1971 iyo 1974, adoo ka eegaya garaaf-laydiyeedka aad sawirtay.

2 Garaafkan hoose wuxuu muujinayaa diwaangalinta ugu badnayd ee gedaha dhaadheer, Itoobiya qaarka mid ah (mitir ahaan).



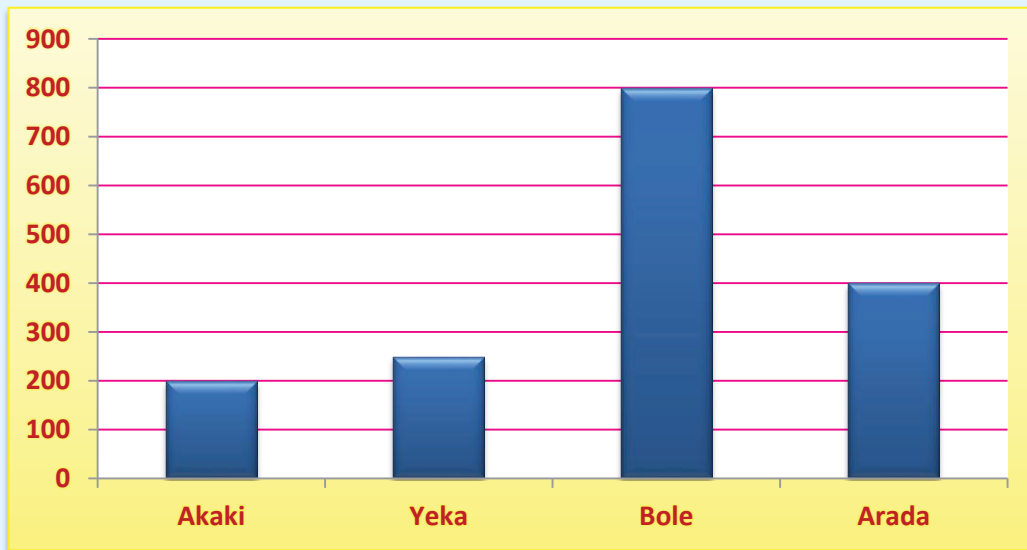
Garaafka 4.4

- 3** Adeegso garaaf- laydiyeedka sare ee 4.4, oo ka jawaab su'aalahan.
- b** waa imisa jooga ugu dheer ee Tid?
- t** dhirtee baa ugu dheer?
- j** hal geed ayaa dhererkiisu yahay laban laabka ku kale. Waa kee geedahaasi?
- 4** Warbixintan soo socota waxay bixineysaa calceliska cimriga xayawaano kaladu-wan.

xayawaan	Celceliska cimrigaa (sanado)
Bisad	11
Ri'	12
Faras	23
Libaax	10
bakayle	7

Adeegso tallaabooyinka oo dhis garaaf- laydiyeedka xogta sare.

- 5** Garaafkan hoose wuxuu muujinayaa tirada dadka ee Afar xaafadood magaalada addis-ababa ah (kumanaan)



Garaafka 4.5

- b** Xaafadeebaa ugu dad badan? **t** Xaafadeebaa ugu dad yar?
- j** Waa imisa dadka ku nooli Arada, Bole iyo Akaki?
- x** Xaafad ayaa tirada dadka ku nooli ay yihiin xaafad kale badhkeed waa tee xaafadaasi?

- 6 Si loo baadho koritaanka bisada ayaa dhakhtar xayawaaneed wuxuu miisaamay bisad saddexdii bilood. Wuxuu ku qoray natijadii uu helay shaxdan soo socota:

Da'doo bilo ah	Culayska (g)
3	190
6	300
9	350
12	420
16	475
18	500

- 7 Ka dooro tuduc buug aad jeceshahay.
- b** waa maxay shanta xaraf ee alfabetka ee aad u malaynayso inay ugu soo noq-noqodka badan yihiin.
- t** tiri inta jeer ee xarafkastaa ku soo noqday tuducda dhexdeeda. Ku qor shax natijada.
- j** sawir garaaf- laydiyeed si aad u muujiso natijada.

4.2 CELCELISKA TIROOYINKA

Ciwaan hoosaadkan waxaad ku baran doontaa sida loo xisaabiyo xogta iyo sababaha loo xisaabiyo celceliska.

Hawlgalka 4.2



- 1 Cabdi wuxuu keenay xisaabtii 70, Englishkii 60 iyo soomaaligii 80, imtixaan lagu saxayay 100, waa maxay celceliska dhibcihiisu?
- 2 Waa maxay celceliska culayska ardayda fasalkaagu?
- 3 Waa maxay celceliska dhererka xubnaha qoyskaagu oo aad ku jirto adiguna?
- 4 Maxaad ugu baahan tahay celceliska urur tiro ah?



Celceliska xogta waxaa lagu xisaabin karaa iyadoo la isku darayo dhammaan tirooyinka oo loo qaybiyo tirada xadiga ururka lagugu siiyay

$$\text{Celcelis} = \frac{\text{wadata xaddiyada}}{\text{Wadata tirada xadiyada}}$$

Ujeedada ugu muhiimsan ee xisaabtani celcelisku waa in la soo saaro hal qiime kaasi oo loo adeegsado in uu u taagnaado dhammaan xogtii.

Tusaale 1: ururinta xadiga roob ee bishii Ogosto shan cisho oo ka mid ah, magaalada Adama dhexdhexaada waa 500, 550, 450, 400 iyo 600mm.

Raadi celceliska xaddiga roobka la helay shantaa cisho gudahood.

$$\begin{aligned}\text{Cel-celis} &= \frac{\text{wadarta xadiga roobka ee shanta cisho}}{\text{Tirada maalmaha}} \\ &= \frac{500 + 550 + 450 + 400 + 600}{5} = 500\text{mm}\end{aligned}$$

SHAQO KOOXEEDKA 4.2



Ka dhiga laba kooxood fasalkiina oo u kala bixiya kooxda A iyo kooxda B.

- b** cabbira dhererka xubin kasta oo kooxda ka mid ah.
- t** xisaabiya celceliska dhererka ee koox kasta.
- j** kooxdee baa A iyo B leh celceliska ugu badan?

Tusaale 2: Raadi celceliska dakhliga maalinlaha ah oo nin tukaanle ahi uu helo alaabada uu iibiyo.

maalinta	Xaddiga uu iibiyo (birr)
isniin	381.00
Salaasa	650.00
Arbaca	525.00
Khamiis	683.00
Jimce	654.00
Sabti	827.00
Axad	718.00

$$\begin{aligned}\text{Celceliska iibka} &= \frac{\text{wadarta alaabada lay iibiyay}}{\text{Tirada maalmaha}} \\ &= \frac{381 + 650 + 525 + 683 + 654 + 827 + 718}{7} = 634\text{birr}\end{aligned}$$

Sidaasi darteed, celceliska iibka maalin kasta waa 634birr.

LAYLIS 4.2

- 1** Magaalada Arsi heer kulka duhurka ee labada todobaad ee ugu horeeya ee bisha September, waxay ahayd 18° , 13° , 15° , 22° , 18° , 14° , 12° . Raadi celceliska heerkulka todobaadka?

Erayada Furaha ah

- ✓ celcelis
- ✓ Dhidibada “X” iyo “Y”.
- ✓ Garaaf- laydiyeed
- ✓ heer/cabir
- ✓ tirada la diwaangaliyay
- ✓ wadar
- ✓ Xogta

Soo koobida cutubka 4

Garaaf-laydiyeedyada waxaa loo adeegsadaa;

- ✓ Xaqiiqada oo si fudud loo akhriyo
 - ✓ Samaynta isbarbardhigida
 - ✓ Xalinta masalooyinka.
- Marka aan sawirayno garaaf- laydiyeed waxaynu u fiirsanaynaa qodobadan soo socda.
- ✓ Garaaf- laydiyeedyadu waa inay is ballac leekaadaan.
 - ✓ Inta u dhaxaysa labada laydiyood ee isku xigaa way isleeg tahay.
 - ✓ Dooro heerka (cabirka) ugu haboon
 - ✓ Garaafku waa in uu yeeshaa ciwaan haboon.
 - ✓ Garaafka waxa uu leeyahay labada dhidib ee “X” iyo “Y”.
- Ujeedada ugu muhiimsan ee xisaabtan celcelisku waa inaad go’ aamiso in hal tiro uu u taagnaado ururka tirooyinka qornaa.
- Si aad u hesho celceliska xog lagu siiyay,
- ✓ Raadi wadarta dhammaan xogta.
 - ✓ U qaybi tirada xogta la ururiyay.

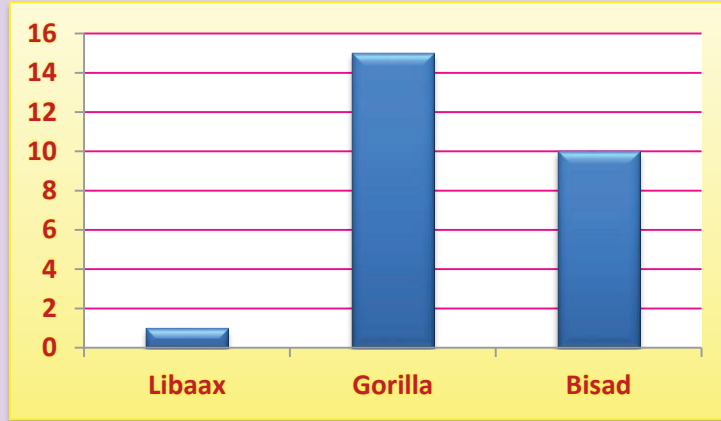
Laylis guud

- 1 Magacaw saddex isticmaal oo garaaf- laydiyeed ah.
- 2 Raadi talaabooyinka la raaco marka la sawirayo garaaf- laydiyeed.
- 3 Shaxdan soo socota waxay ina tusaysaa tamarta loo adeegsaday hawl galada lagu cabbiray kilocalories daqiiqadiiba.

hawl	Kilocalories/daqiiqad
Socod	7
Orad	10
Dabaal	14
Wareegid	8

- b** dooro cabbirka ugu haboon oo sawir garaaf- laydiyeed.
- t** Adoo ku salaynaya garaafka ka jawaab su'aalahaan soo socda.
 - i** hawshee ayaa u baahan tamar badan daqiiqadiiba?
 - ii** hawshee ayaa u baahan tamar yar daqiiqadiiba?

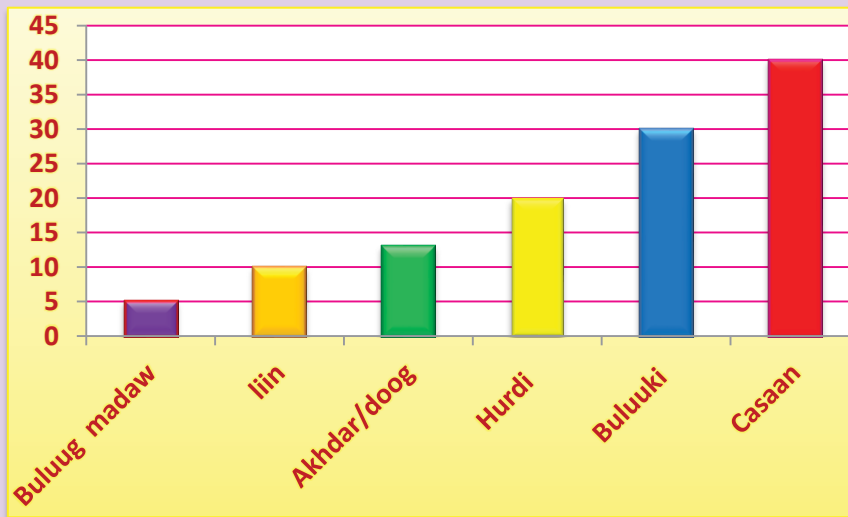
4 Adeegso garaaf- laydiyeed hoose si aad uga jawaabto su'aalahaan soo socda. *Caadaysiga hurdada ee xayawaan gaar ah ee maalintii.*



Shaxanka 4.6

- b** Imisa saacadood ayay bisadu soo jeedaa maalintii?
- t** Imisa saacadood ayuu Gorilluhu seexdaa maalintii?
- j** xayawaankeebaa ugu hurdo yar?

5 halkan waxaa ah garaaf muujinaya midabada ardaydu ay jecel yihiin.



Shaxanka 4.7

- b** midkeebaa u muuqda inuu yahay ka ugu caansan?
- t** Labadee midab ayaa marka la isku daro u muuqda sida casaankoo kale?

- j** Midabkee ayay doorteen 20 arday? 10 arday?
- x** Hal midab baa saddex jeer u muuqda sida midkale, keebuu ahaa kaasi?
- 6** Sheeg u jeedada xisaabinta celceliska.
- 7** Qor talaabooyinka sida loo helo celceliska xogta.
- 8** Halkan waxaa ku qornaa tiro koobka da'da oo ah lix arday oo fasalka 5^{aad} oo laba qaybood ah.

Qaybta A	12	11	13	11	14	11
Qaybta B	15	14	10	11	12	16

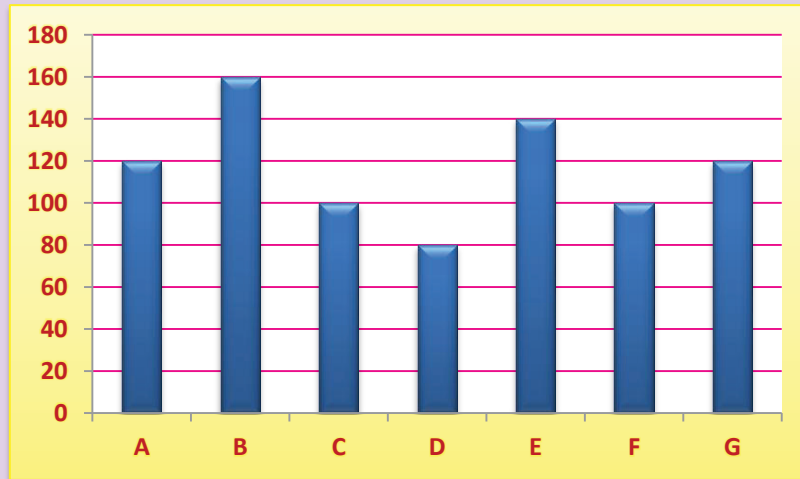
- b** Raadi celceliska da'da ardayda ee qayb kasta.
- t** Qaybtee baa celceliska ugu sareeya leh?
- 9** Bashiir wuxuu iibiyaa hal-xabo digaagad ah maalintii, muddo todobaad ahayd. Qiimaha iibka waata xaga hoose laguugu muujiyay.

Maalinta	Axad	isniin	salaaa	arbaca	Khamiis	jimce	sabti
Lacagta (birr)	63	44	44	48	44	44	49

Raadi xaddiga celceliska iibka ee todobaadkii.

- 10** Raadi celceliska xogtan soo socota.
- b** 21, 9, 16, 67, 13 **t** 286, 341, 152, 224, 435.
- j** 27, 14, 23, 6, 9, 15, 6.

Garaafka hoose waxaa uu muujinayaa dhererada ardayda ee fasalka gaar ah. Akhri garaafka oo raadi celceliska dhererka.



Shaxanka 4.8