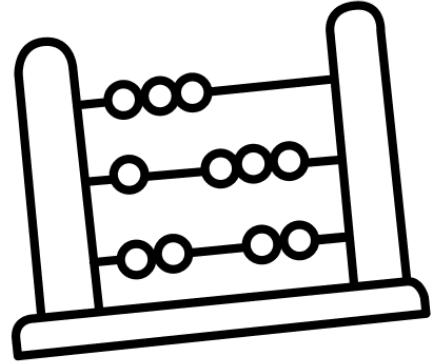


Saamiga taanjanta (Tangent ratio)

Maths

Cutub: Trigonometry (Trigonometry)



Natiijo

Waxaan ka soo saari karaa saamiga taanjanta (tangent ratio) dhinacyada saddexagalka qumman (right-angled triangle).

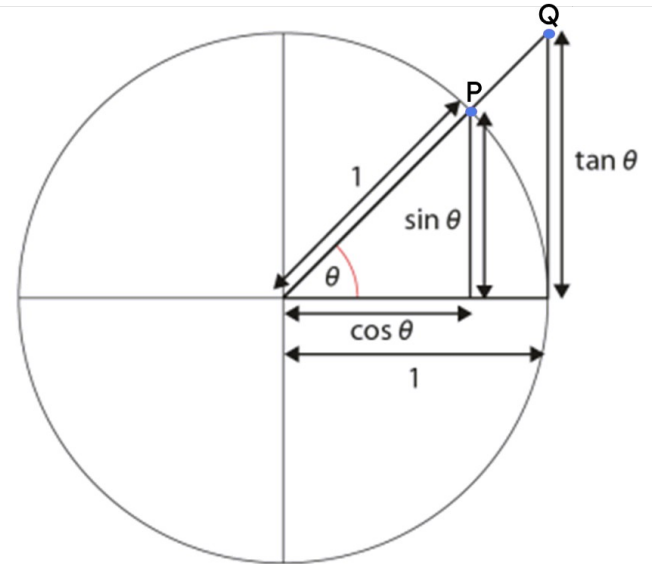
Erayada muhiimka ah

Dhinaca ku xiga (adjacent side) ee saddexagalka qumman waa dhinaca ku xiga xagasha qumman iyo xagasha calaamadeysan labadaba.

Dhinaca ka soo horjeeda (opposite side) ee saddexagalka qumman waa dhinaca ka soo horjeeda xagasha calaamadeysan.

Saamiyada trigonometric (trigonometric ratios) waa saamiyo u dhexeeya laba dhinac oo ka mid ah dhererka saddexagalka qumman.

Taanjanta xagal ($\tan(\theta^\circ)$) waa isku-dubbaridka y (y-coordinate) ee barta Q ee saddexagalka ka soo baxa goobada halbeegga (unit circle).



Qaabka casharka

Saamiga taanjanta (Tangent ratio)



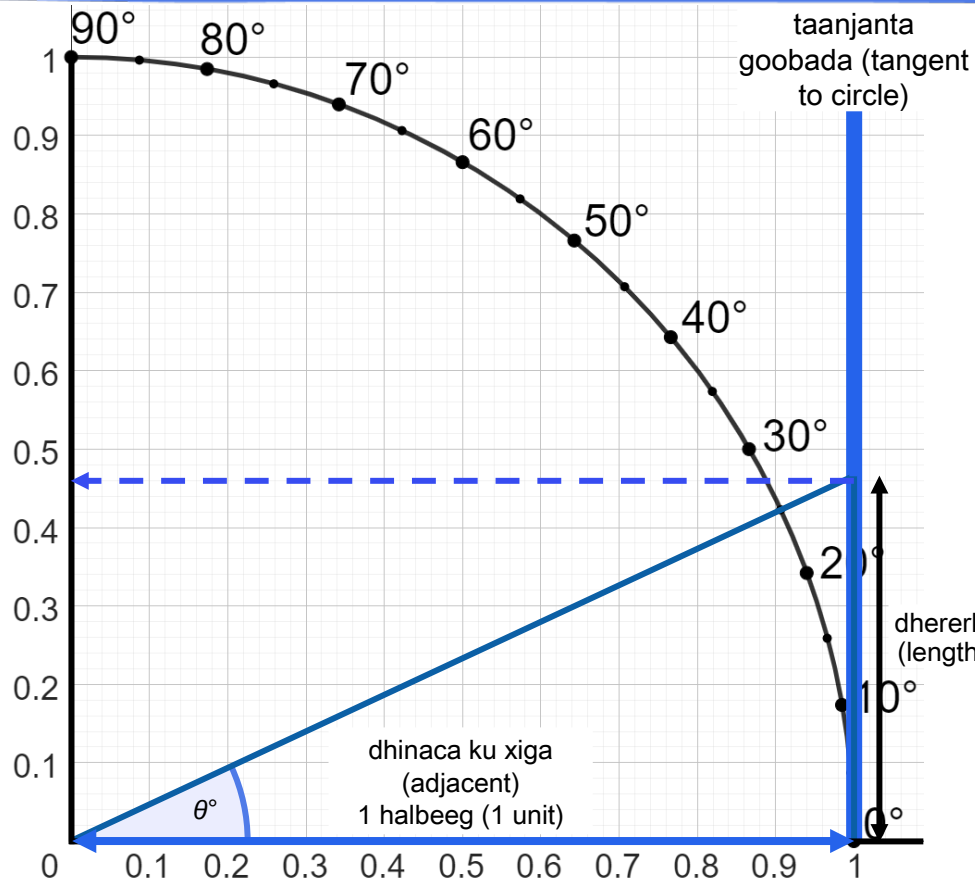
Shaxaha saamiyada (ratio tables), goobada halbeegga (unit circle), iyo taanjanta (tangents)



Dhinaca ka soo horjeeda (opposite) iyo dhinaca ku xiga (adjacent)



Si wax ku ool ah u isticmaalka xisaabiyaha (calculator) saamiga taanjanta (tan ratio)



Qiyamyada kala duwan ee θ° , waxaan diiwaangelin karaa dhererka kala duwan ee dhinaca ka soo horjeeda θ° .
Si kasta ha ahaatee, dhinaca ku xiga θ° wali waa 1 halbeeg (1 unit).



Isra

xagal (angle) (θ°)	dhererka taanjanta (length of tangent)
40°	0.84
30°	0.57
25°	0.46



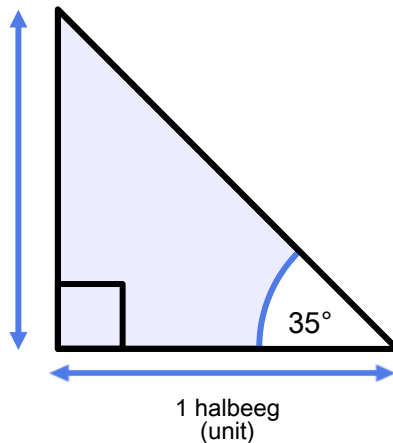
angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
25	0.423	0.906	0.466
30	0.5	0.866	0.577
35	0.574	0.819	0.7
40	0.643	0.766	0.839
45	0.707	0.707	1
50	0.766	0.643	1.192
55	0.819	0.574	1.428
60	0.866	0.5	1.732
65	0.906	0.423	2.145
70	0.94	0.342	2.747
75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

Oh, tirooyinkan waxay u muuqdaan kuwo la yaqaan. Hadda waxaan dib u abuurray shaxda qiimaha trig ee saamiga tan.



Isra

Sidaa darteed, waxaan isticmaali karnaa saamiga tan (tan ratio) ee shaxda qiimaha trig si aan u helno dhererka dhinaca ka soo horjeeda xagasha.





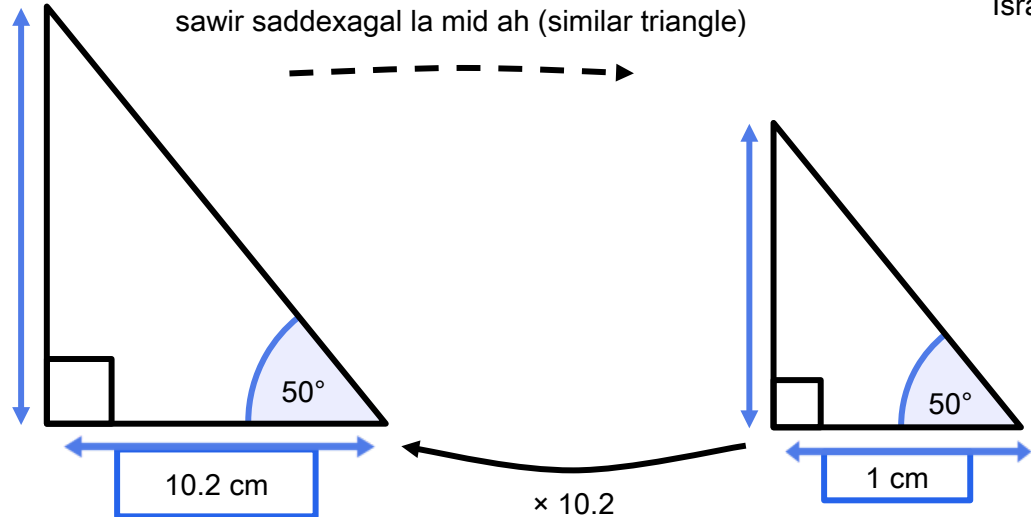
angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
25	0.423	0.906	0.466
30	0.5	0.866	0.577
35	0.574	0.819	0.7
40	0.643	0.766	0.839
45	0.707	0.707	1
50	0.766	0.643	1.192
55	0.819	0.574	1.428
60	0.866	0.5	1.732
65	0.906	0.423	2.145
70	0.94	0.342	2.747
75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

Waxaan u baahanahay inaan sawiro saddexagal la mid ah oo leh dhinac ku xiga oo dhererkiisu yahay 1 halbeeg (unit), oo aan isticmaalo saamiga tan (tan ratio) ee xagashaas.



Isra

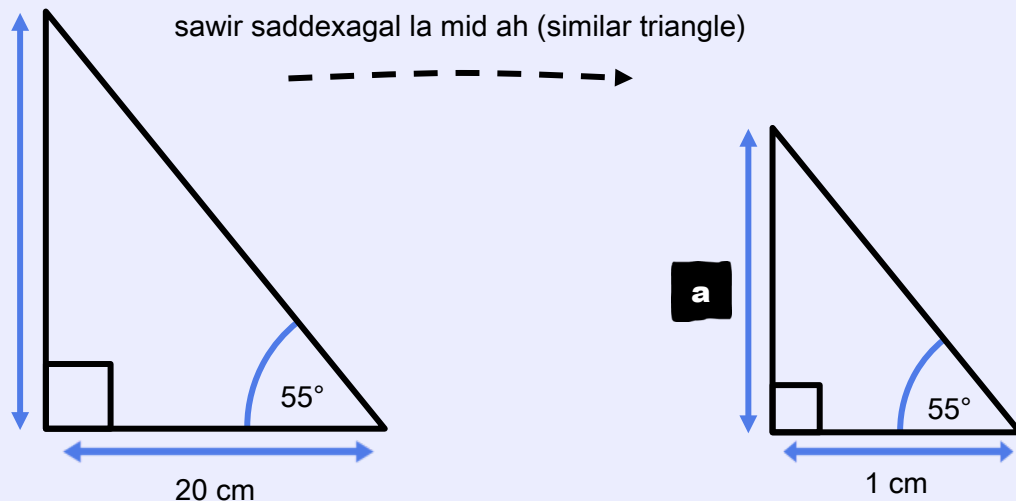
sawir saddexagal la mid ah (similar triangle)



angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
25	0.423	0.906	0.466
30	0.5	0.866	0.577
35	0.574	0.819	0.7
40	0.643	0.766	0.839
45	0.707	0.707	1
50	0.766	0.643	1.192
55	0.819	0.574	1.428
60	0.866	0.5	1.732
65	0.906	0.423	2.145
70	0.94	0.342	2.747
75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

Saddexagal la mid ah kani waa la sawiri doonaa, kaas oo dhinaciisa ku xiga xagasha 55° uu dhererkiisu yahay 1 cm.

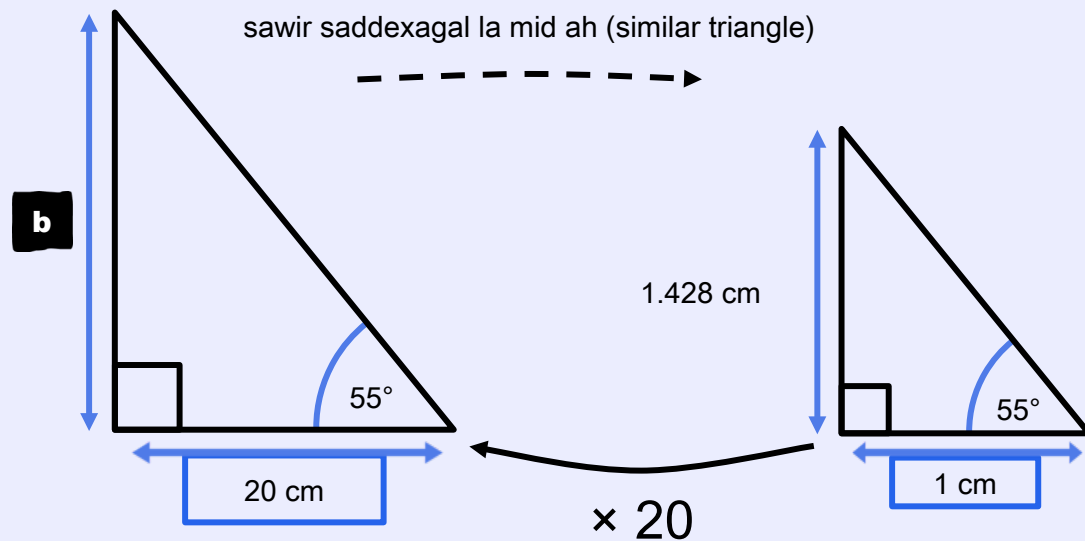
Adigoo isticmaalaya shaxda qiimaha trig (trig values), raadi dhererka dhinaca calaamadeysan a.



angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
25	0.423	0.906	0.466
30	0.5	0.866	0.577
35	0.574	0.819	0.7
40	0.643	0.766	0.839
45	0.707	0.707	1
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65	0.906	0.423	2.145
70	0.94	0.342	2.747
75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

Saddexagal la mid ah kani waa la sawiri doonaa, kaas oo dhinaciisa ku xiga xagasha 55° uu dhererkiisu yahay 1 cm.

Adigoo isticmaalaya saddexagallo isku mid ah (similar triangles), raadi dhererka dhinaca calaamadeysan b.

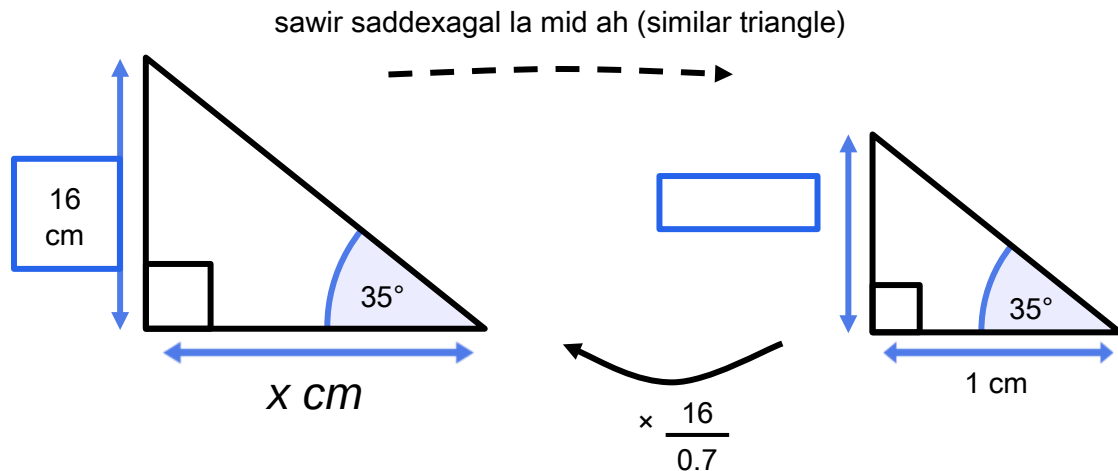


angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
25	0.423	0.906	0.466
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60	0.866	0.5	1.732
65	0.906	0.423	2.145
70	0.94	0.342	2.747
75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

Waxa sidoo kale suurtoagal ah in la isticmaalo saamiga tan (tan ratio) si loo helo dhererka dhinaca ku xiga xagasha marka la eego dhererka dhinaca ka soo horjeeda.

$$\times \frac{16}{0.7}$$

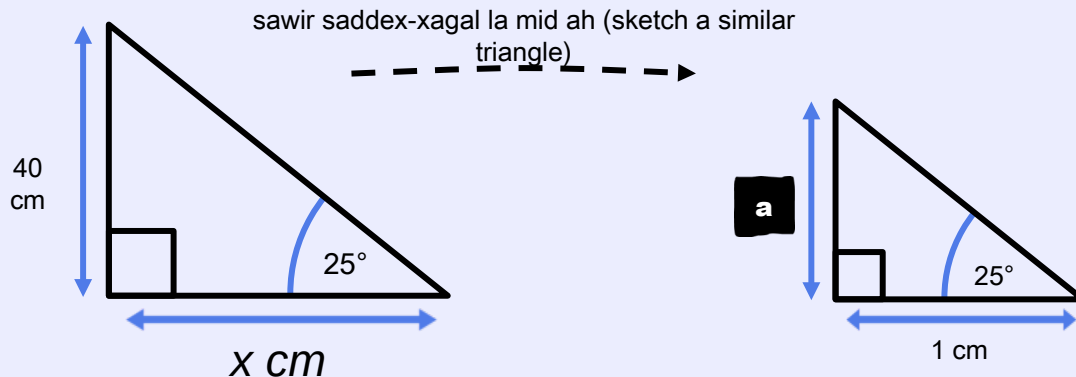
opp (opp)	adj (adj)
	$\frac{16}{0.7}$



angle	sine	cosine	tan (tan)
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
25	0.423	0.906	0.466
30	0.5	0.866	0.577
35	0.574	0.819	0.7
40	0.643	0.766	0.839
45	0.707	0.707	1
50	0.766	0.643	1.192
55	0.819	0.574	1.428
60	0.866	0.5	1.732
65	0.906	0.423	2.145
70	0.94	0.342	2.747
75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

Soo hel dhererka dhinaca lagu calaamadeeyay a. (Find the length of the side labelled a.)

opp (opp)	adj (adj)
a	1

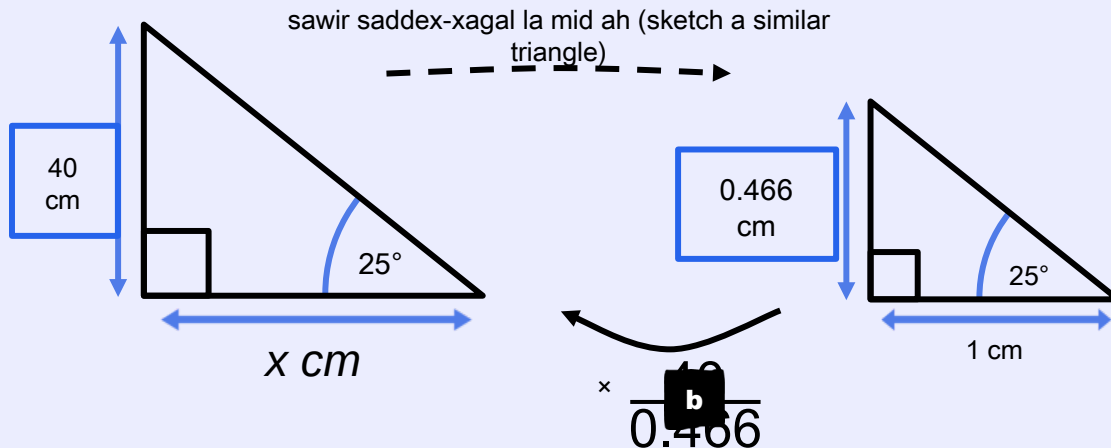


angle	sine	cosine	tan (tan)
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
25	0.423	0.906	0.466
30	0.5	0.866	0.577
35	0.574	0.819	0.7
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70	0.94	0.342	2.747
75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

Waa maxay isku-dhufashada (scale factor), oo loo qoro jajab (fraction), laga bilaabo saddexagalka (triangle) leh dhinac ku xiga (adjacent side) oo ah 1 cm ilaa kan kale?

$$\times \frac{40}{0.466}$$

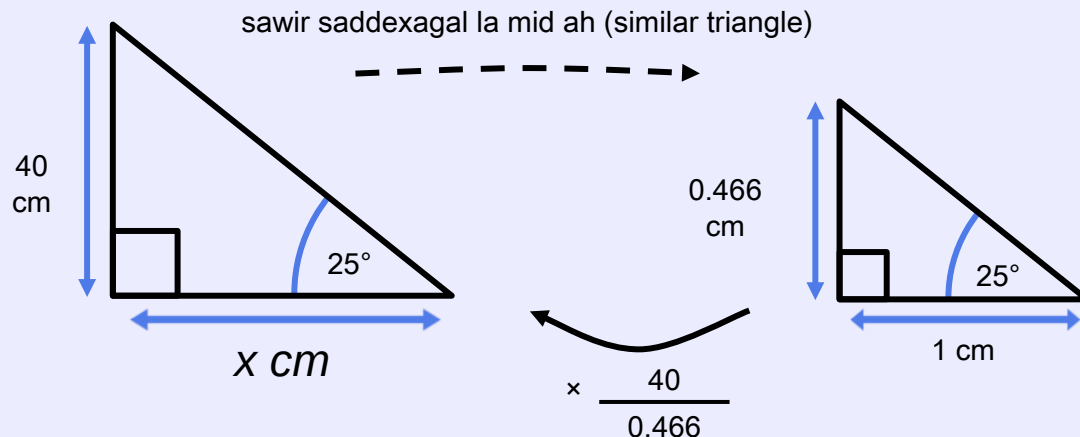
opp (opp)	adj (adj)
0.466	1
40	



angle	sine	cosine	tan
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
25	0.423	0.906	0.466
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75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

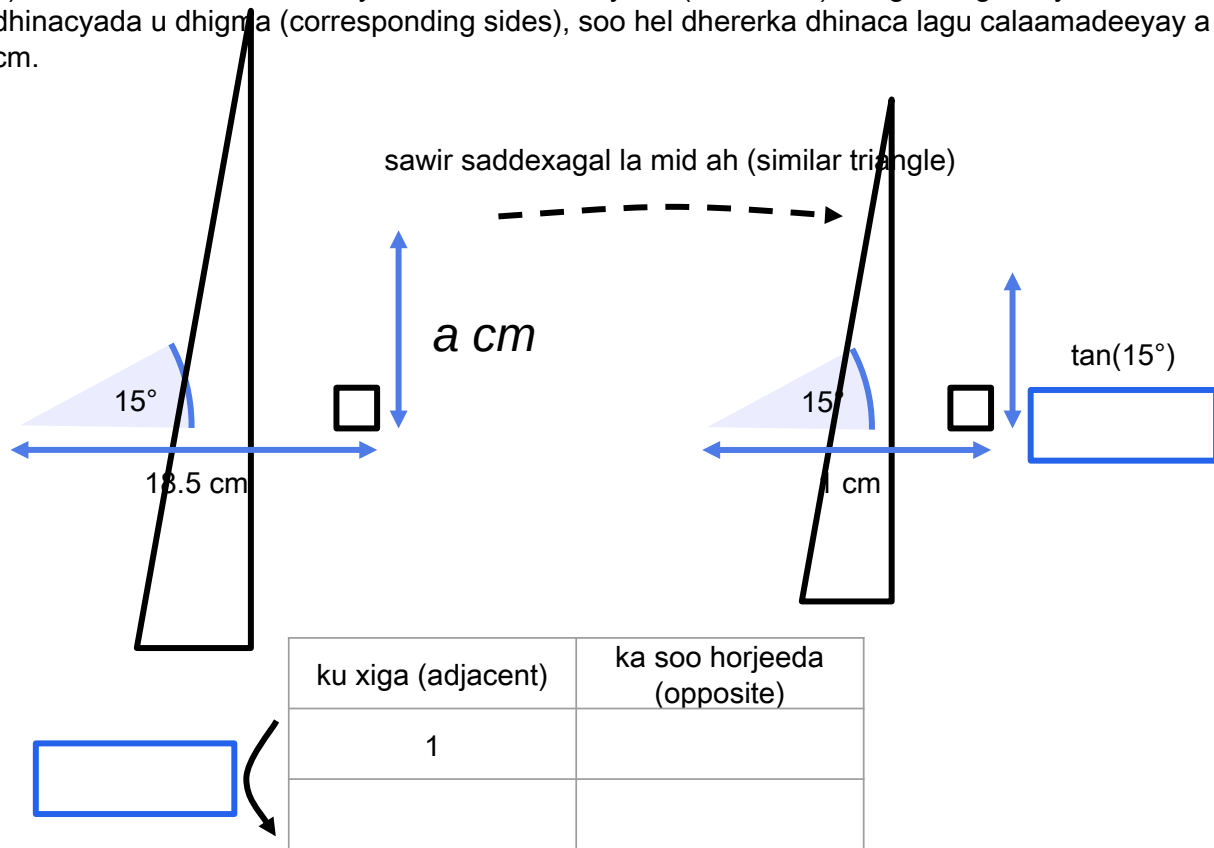
Sidaa awgeed, soo hel dhererka dhinaca lagu calaamadeeyay x (2 d.p.)

	opp	adj
x	40	0.466
	0.466	1
	40	



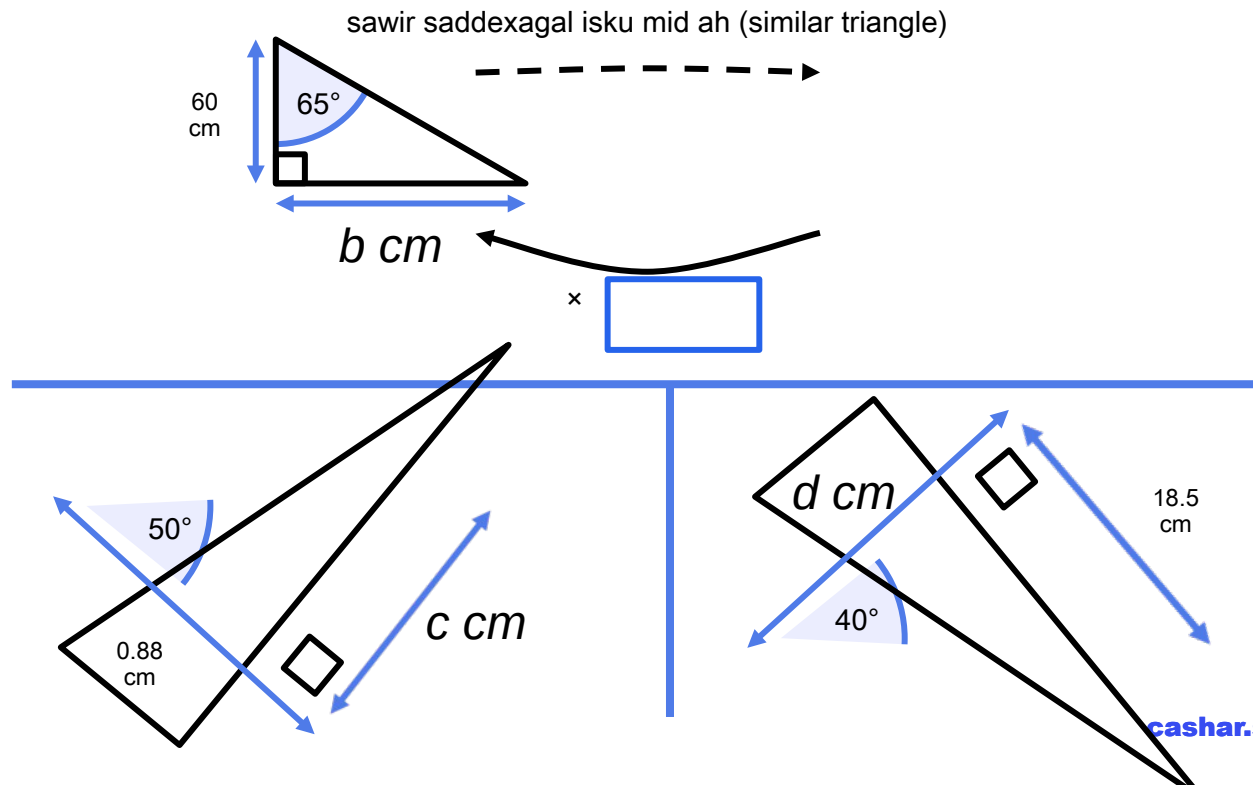
angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
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70	0.94	0.342	2.747
75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

1) Buuxi meelaha bannaan iyo shaxanka saamiyada (ratio table). Adigoo tixgelinaya dhinacyada u dhigma (corresponding sides), soo hel dhererka dhinaca lagu calaamadeeyay a cm.



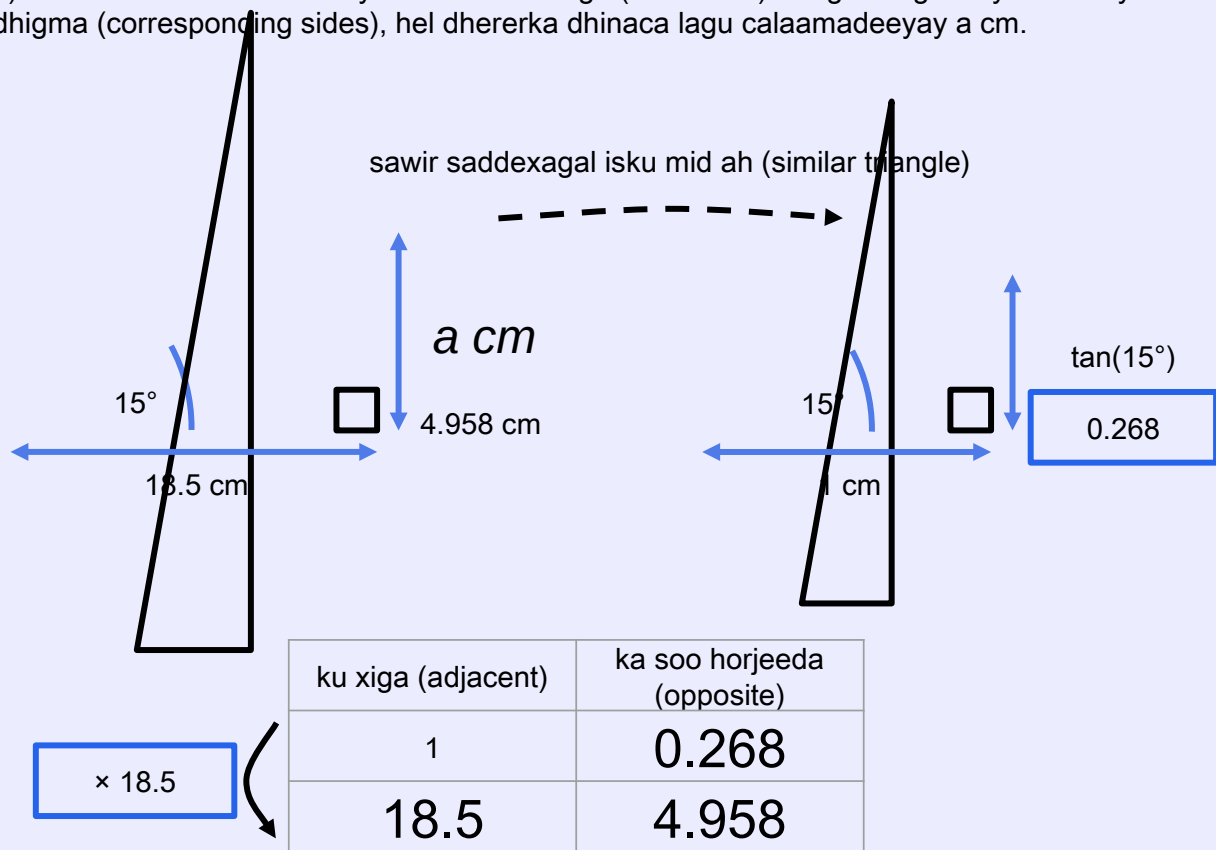
angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
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70	0.94	0.342	2.747
75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

2) Adigoo sawiraya saddexagallo isku mid ah (similar triangles), hel dhererka dhinaca maqan ee saddexagal kasta.

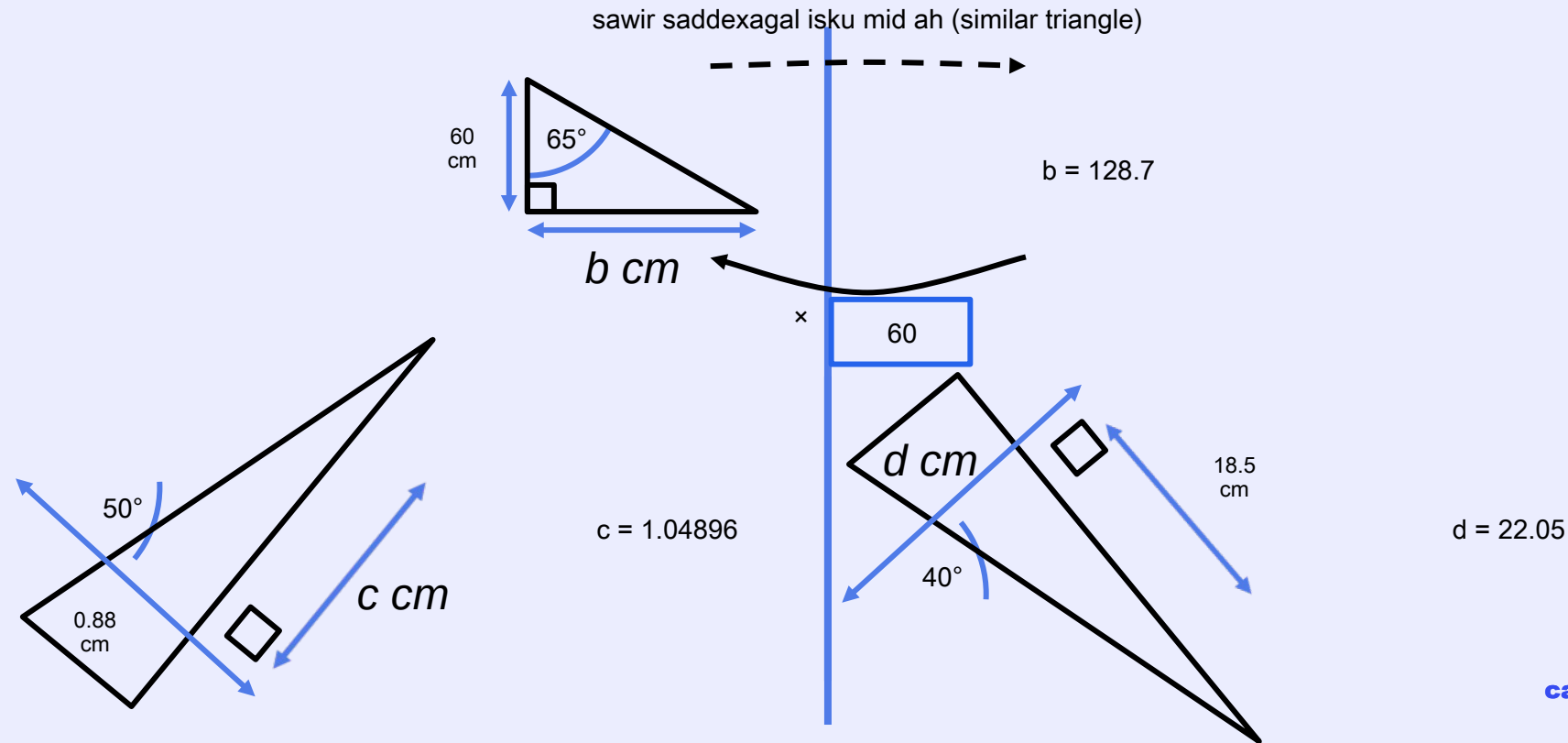


angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
25	0.423	0.906	0.466
30	0.5	0.866	0.577
35	0.574	0.819	0.7
40	0.643	0.766	0.839
45	0.707	0.707	1
50	0.766	0.643	1.192
55	0.819	0.574	1.428
60	0.866	0.5	1.732
65	0.906	0.423	2.145
70	0.94	0.342	2.747
75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

1) Buuxi meelaha bannaan iyo shaxda saamiga (ratio table). Adigoo tixgelinaya dhinacyada u dhigma (corresponding sides), hel dhererka dhinaca lagu calaamadeeyay a cm.



2) Adigoo sawiraya saddexagallo isku mid ah (similar triangles), hel dhererka dhinaca maqan ee saddexagal kasta.



Qaabka casharka

Saamiga taangentada (Tangent ratio)



Shaxaha saamiyada (Ratio tables), goobada cutubka (unit circle), iyo taangentada (tangents)



Dhinaca ka soo horjeeda (opposite) iyo dhinaca ku xiga (adjacent)



Si wax ku ool ah u isticmaalka kalkuleetarka (calculator) saamiga tan (tan ratio)

Dhinaca ka soo horjeeda (opposite) iyo dhinaca ku xiga (adjacent)



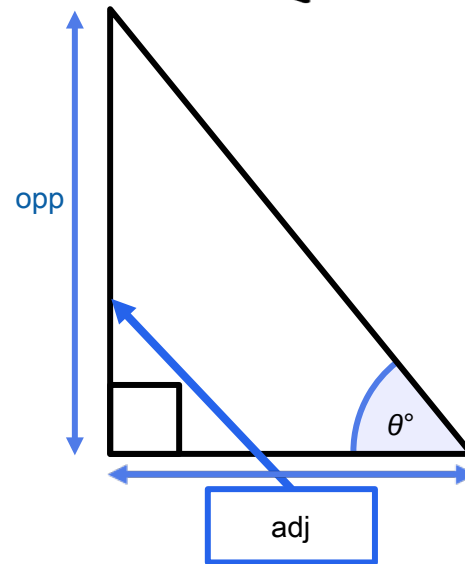
Sharaxaad

Dhinaca ka soo horjeeda xagasha (angle) (oo le'eg θ°) ee saddexagalka qumman (right-angled triangle) had iyo jeer waa $\tan(\theta^\circ)$ lagu dhuftey dhererka dhinaca ku xiga (adjacent) isla xagashaas.

Waxaan la yaabanahay inay jirto xiriir la mid ah oo u dhexeeya dhinacyada ka soo horjeeda (opposite) iyo kuwa ku xiga (adjacent) ee saddexagalka iyo saamiga taangentada (tangent ratio).



Isra



angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
25	0.423	0.906	0.466
30	0.5	0.866	0.577
35	0.574	0.819	0.7
40	0.643	0.766	0.839
45	0.707	0.707	1
50	0.766	0.643	1.192
55	0.819	0.574	1.428
60	0.866	0.5	1.732
65	0.906	0.423	2.145
70	0.94	0.342	2.747
75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

$$\text{dhinaca ka soo horjeeda} = \text{adj} \times \tan(\theta^\circ)$$

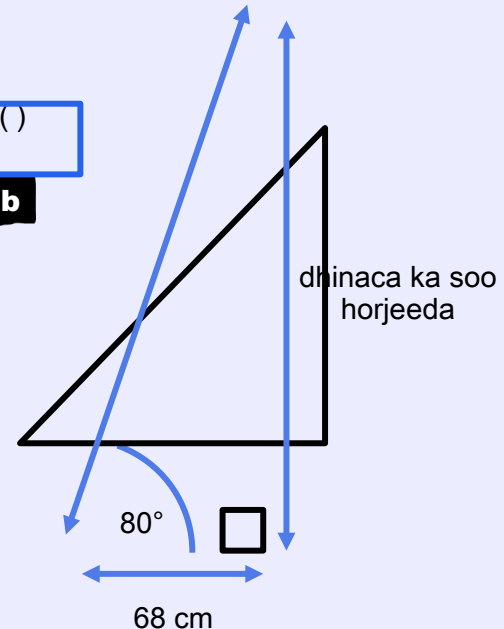
Adigoo isticmaalaya xiriirkan, soo hel qiimaha (values) waa inuu galo meelahan bannaan.

$$\text{dhinaca ka soo horjeeda (opposite side)} = \text{adj} \times \tan(\theta^\circ)$$

a

b

Sidaas awgeed, soo hel dhererka dhinaca ka soo horjeeda xagasha 80° .



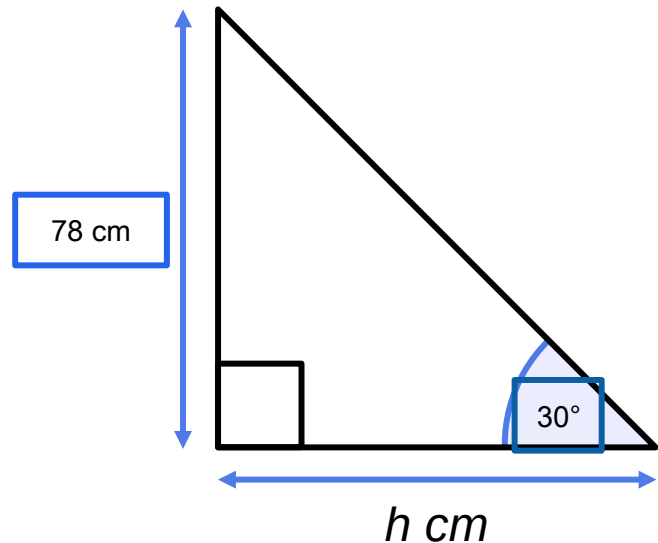
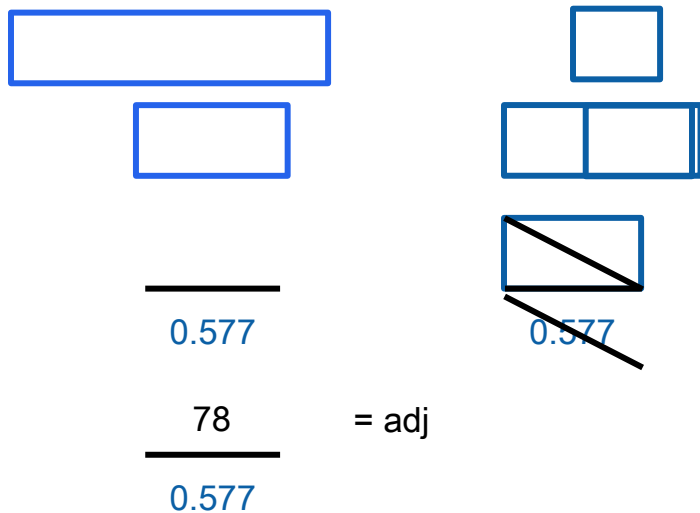
Dhinaca ka soo horjeeda iyo dhinaca ku xiga (adjacent)

Waxaa sidoo kale suurtoagal ah in la helo dhererka dhinaca ku xiga (adjacent) haddii aan ognahay:

cabirka xagasha uu dhinacu ku xiga yahay (adjacent)

dhererka dhinaca ka soo horjeeda xagashan

Waxaan tan ku samayn karnaa annagoo ku beddelaya qiimaha (values) la yaqaan ee saddexagalka, oo dib u habeynaya isla'egta (equation) aan ku dhameyno.



Dhinaca ka soo horjeeda iyo dhinaca ku xiga (adjacent)

Adigoo isticmaalaya xiriirkan, soo hel qiimaha (values) waa inuu galo meelahan bannaan.

$$\boxed{} = \text{adj} \times \tan()$$

a

$$\boxed{}$$

b

Adiga oo og in $\tan(75^\circ)$ uu leeyahay qiime (value) 3.732, waa maxay qiimaha (value) gelaya meelahan bannaan?

$$105 = \text{adj} \times \tan(75^\circ)$$

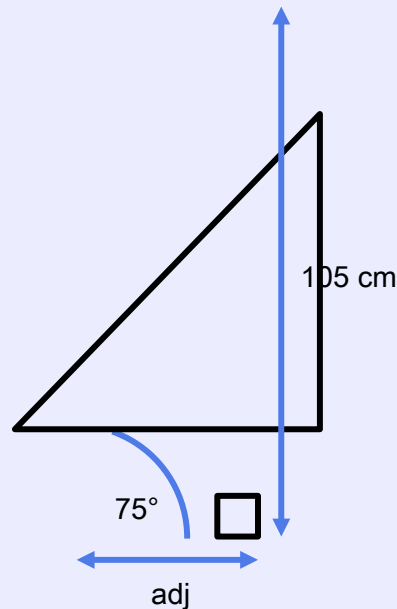
$\frac{105}{3.732}$

$\frac{105}{3.732}$

c **d**

Sidaa awgeed, waa imisa dhererka dhinaca ku xiga xagasha 75° ?

$$\text{dhinaca ka soo horjeeda (opposite side)} = \text{adj} \times \tan(\theta^\circ)$$



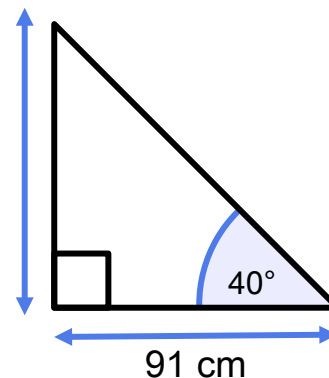
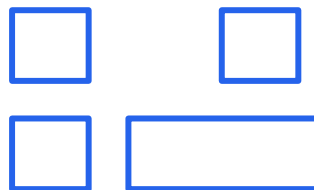
angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
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60	0.866	0.5	1.732
65	0.906	0.423	2.145
70	0.94	0.342	2.747
75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

1) Raadi dhererka dhinaca ka soo horjeeda (opposite) xagasha calaamadeysan adiga oo isticmaalaya xiriirkan.

$$\text{dhinaca ka soo horjeeda} \\ (\text{opposite side}) = \text{adj} \times \tan(\theta^\circ)$$

a)

$$\text{adj} \times \tan(\theta^\circ) \text{ cm}$$



Hawsha B Dhinaca ka soo horjeeda (opposite) iyo dhinaca ku xiga (adjacent)

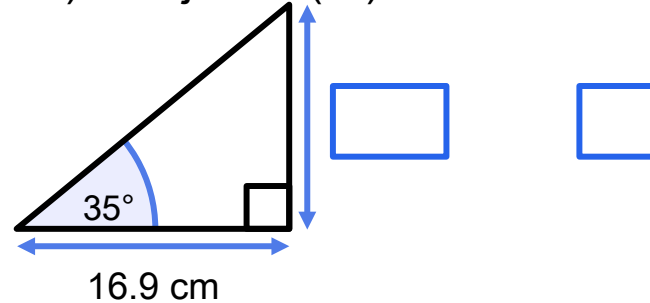


angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
25	0.423	0.906	0.466
30	0.5	0.866	0.577
35	0.574	0.819	0.7
40	0.643	0.766	0.839
45	0.707	0.707	1
50	0.766	0.643	1.192
55	0.819	0.574	1.428
60	0.866	0.5	1.732
65	0.906	0.423	2.145
70	0.94	0.342	2.747
75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

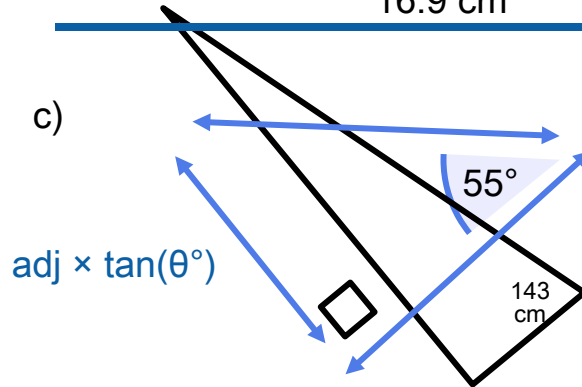
1) Raadi dhererka dhinaca ka soo horjeeda (opposite) xagasha calaamadeysan adiga oo isticmaalaya xiriirkan.

$$\text{dhinaca ka soo horjeeda} \\ (\text{opposite side}) = \text{adj} \times \tan(\theta^\circ)$$

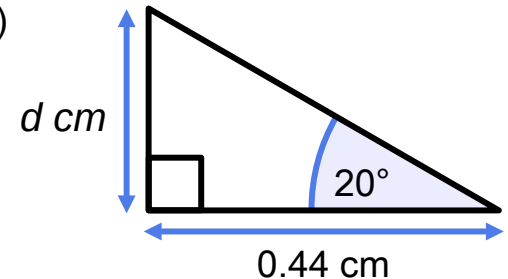
b)



c)



d)

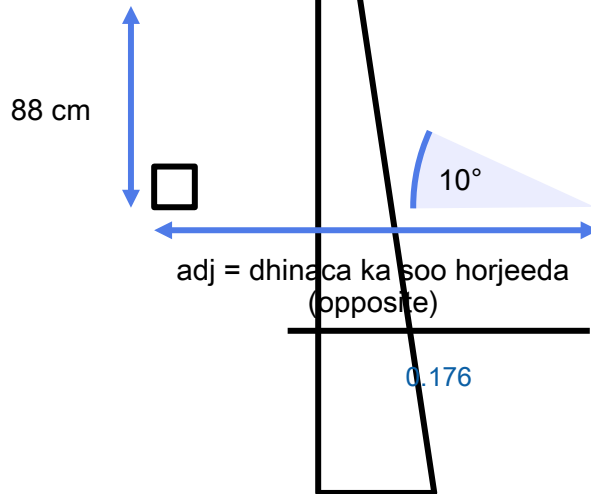


angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
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80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

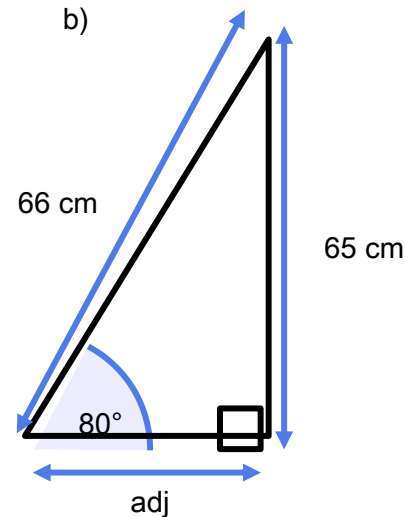
2) Raadi dhererka dhinaca ku xiga (adjacent) marka la siiyo dhinaca ka soo horjeeda (opposite) xagasha la calaamadeeyay.

$$\text{dhinaca ka soo horjeeda (opposite)} = \text{adj} \times \tan(\theta^\circ)$$

a)



b)



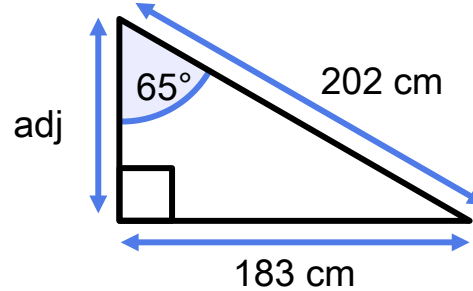
adj =

angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
20	0.342	0.94	0.364
25	0.423	0.906	0.466
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70	0.94	0.342	2.747
75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞

2) Raadi dhererka dhinaca ku xiga (adjacent) marka la siiyo dhinaca ka soo horjeeda (opposite) xagasha la calaamadeeyay.

$$\text{dhinaca ka soo horjeeda (opposite)} = \text{adj} \times \tan(\theta^\circ)$$

c)



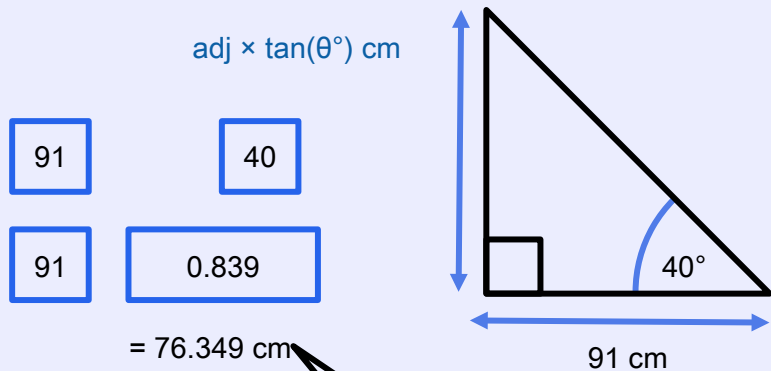
d) Saddex-xagal qumman (right-angled triangle) wuxuu leeyahay xagal 85° .

Dhererka dhinaca ka soo horjeeda (opposite) xagashan waa 142 cm.

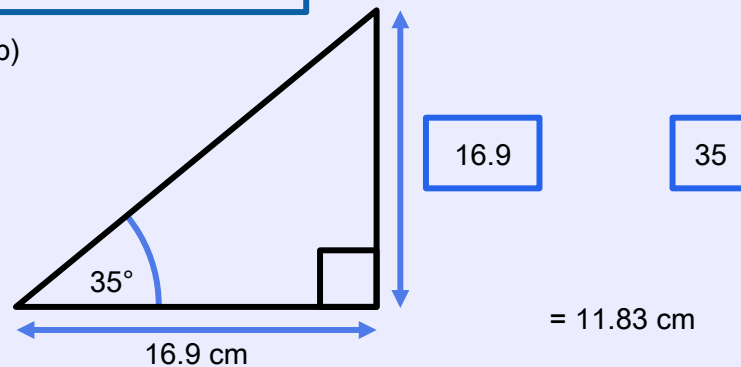
1) Raadi dhererka dhinaca ka soo horjeeda (opposite) xagasha la calaamadeeyay adigoo isticmaalaya xiriirkan.

$$\text{dhinaca ka soo horjeeda} = \text{adj} \times \tan(\theta^\circ)$$

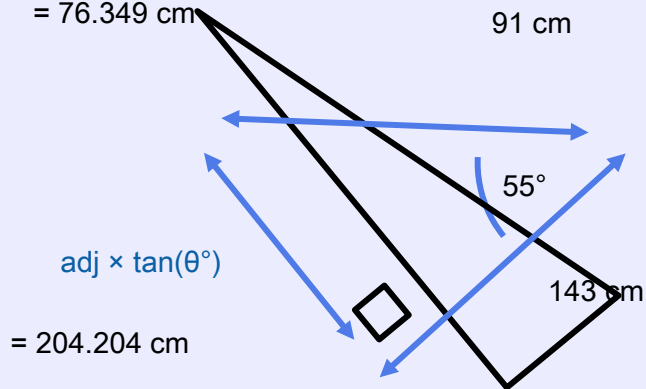
a)



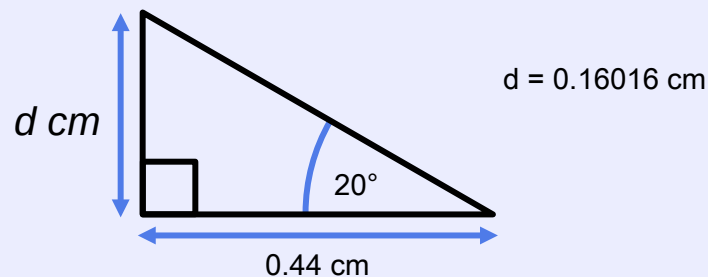
b)



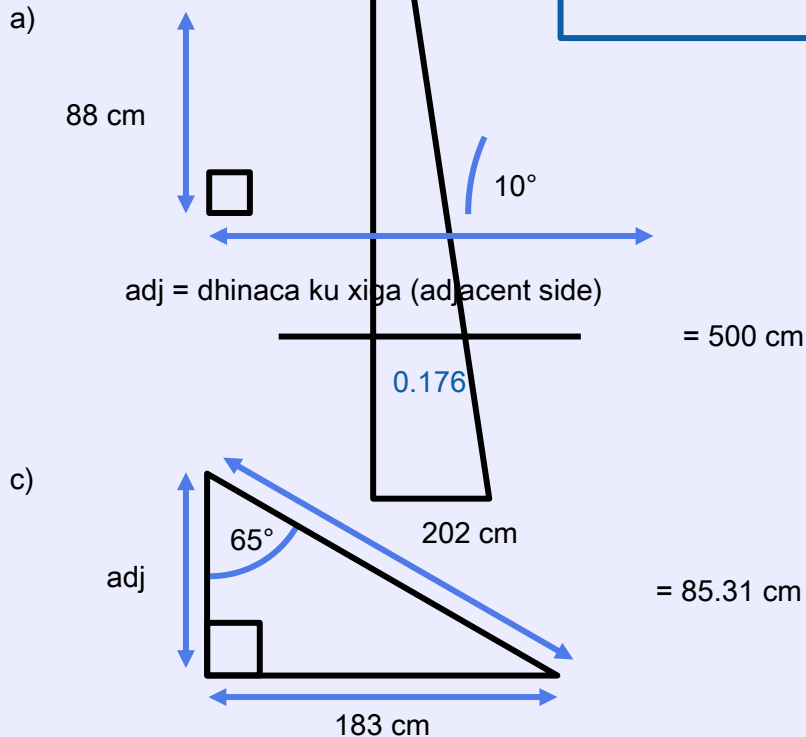
c)



d)



2) Raadi dhererka dhinaca ku xiga (adjacent) marka la eego dhinaca ka soo horjeeda xagasha la calaamadeeyay.



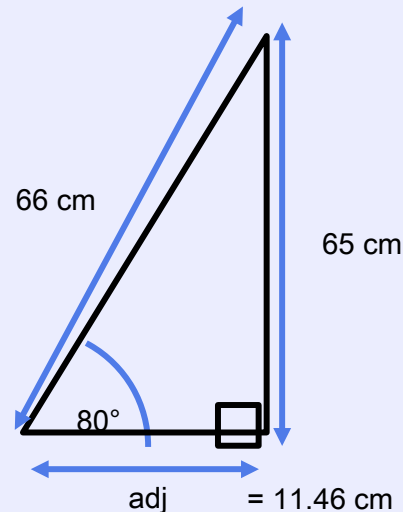
$$\text{dhinaca ka soo horjeeda} = \text{adj} \times \tan(\theta^\circ)$$

b)

adj =

65

5.671



d) Saddexagal qumman (right-angled triangle) wuxuu leeyahay xagal 85°. Dhererka dhinaca ka soo horjeeda xagashan waa 142 cm.

= 12.42 cm

Qaabka casharka

Saamiga taangent (Tangent ratio)



Shaxda saamiga (Ratio tables), goobta cutubka (unit circle), iyo taangent (tangents)



Dhinaca ka soo horjeeda (opposite) iyo dhinaca ku xiga (adjacent)



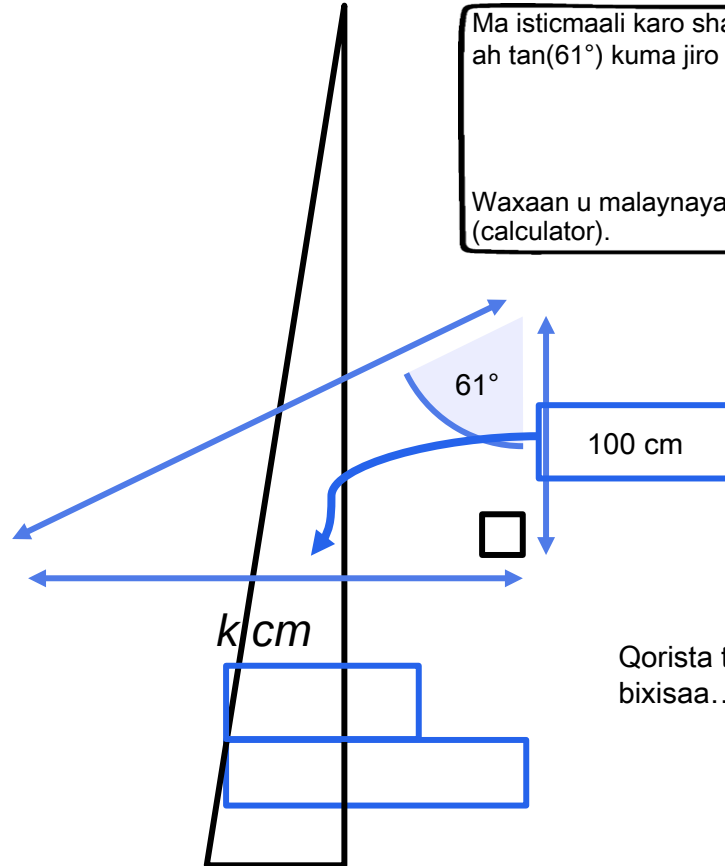
Isticmaalka xisaabiyaha (calculator) si wax ku ool ah ugu saamiga taangent (tan ratio)

Isticmaalka xisaabiyaha (calculator) si wax ku ool ah ugu saamiga taangent (tan ratio)



Sharaxaad

angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
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75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞



Ma isticmaali karo shaxda saddexagalkaan, sababtoo ah $\tan(61^\circ)$ kuma jiro shaxda.

Waxaan u malaynayaa inaan isticmaalo xisaabiye (calculator).

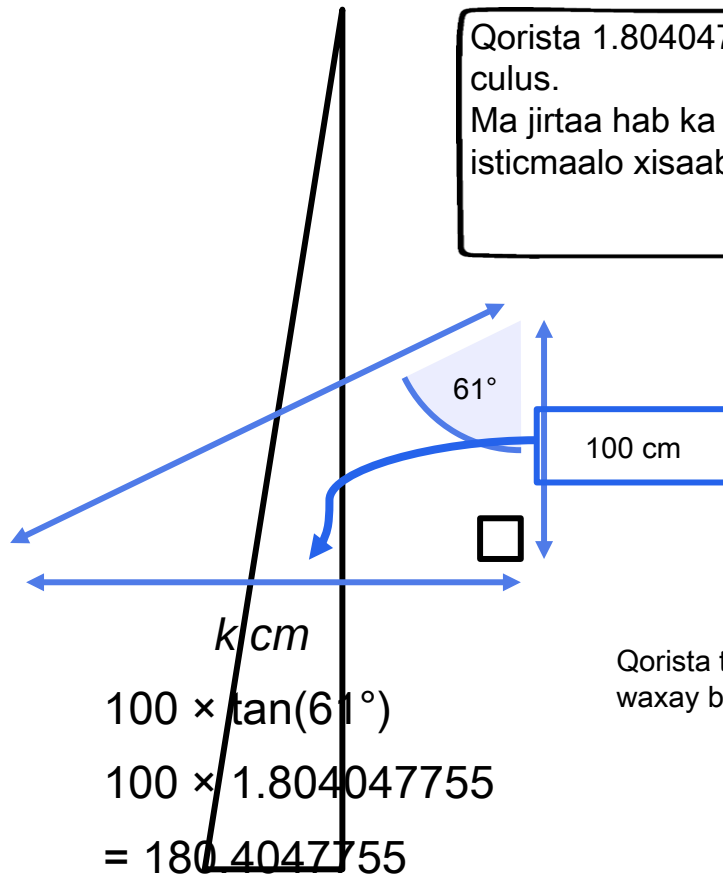


Yacquub

Qorista $\tan(61^\circ)$ xisaabiyaha (calculator) waxay bixisaa...



angle	sine	cosine	tangent
0	0	1	0
5	0.087	0.996	0.087
10	0.174	0.985	0.176
15	0.259	0.966	0.268
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75	0.966	0.259	3.732
80	0.985	0.174	5.671
85	0.996	0.087	11.43
90	1	0	∞



Qorista 1.804047755 mar kale waa mid culus.
Ma jirtaa hab ka dhakhso badan oo loo isticmaalo xisaabiyaha (calculator)?



Yacquub

Qorista $\tan(61^\circ)$ ee xisaabiyaha (calculator) waxay bixisaa...

Si fiican u isticmaalka xisaabiyaha (calculator) ee saamiga tan (tan ratio)



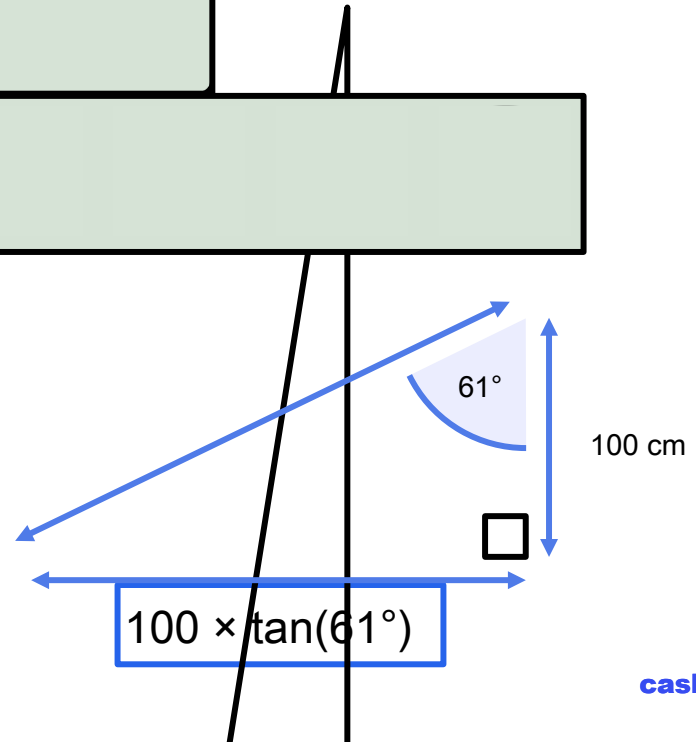
Sharaxaad

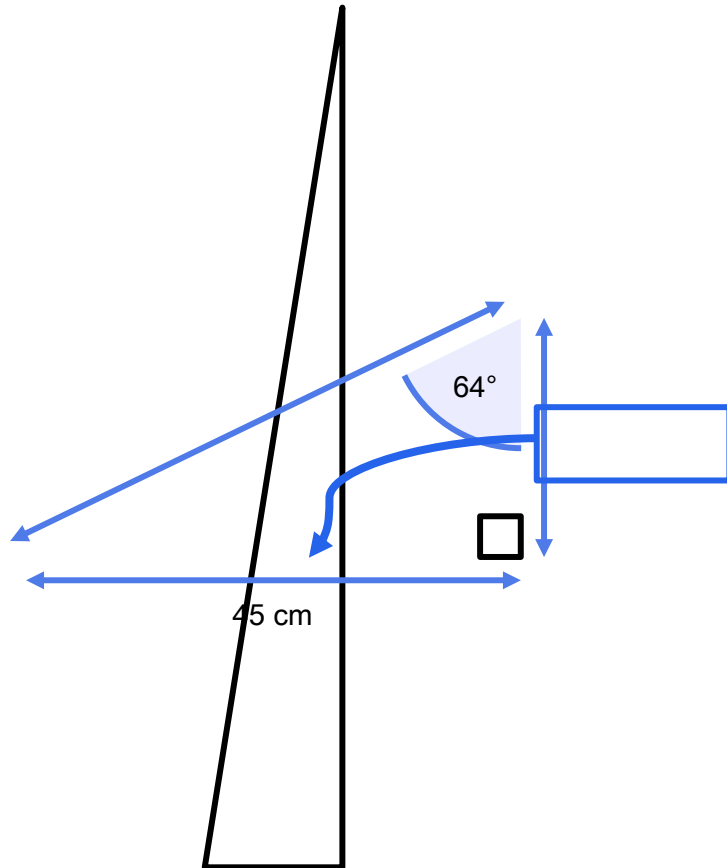
Ka hor isticmaalka xisaabiyaha (calculator), hubi inuu ku jiro qaabka darajooyinka (degrees mode) (D).



saamiga tan (tan ratio) (xarigga furitaanka waa si toos ah loo qoray)

ee xagasha ku xiga (adjacent) (waa inaad qortaa xarigga xidhitaanka adiga)

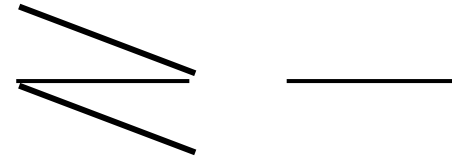




Laakiin helista dhererka dhinaca ku xiga (adjacent) waxay noqon doontaa mid adag, maadaama ay ku jirto qaybin (division), sax?



Yacquub



$$k = \frac{45}{\quad}$$



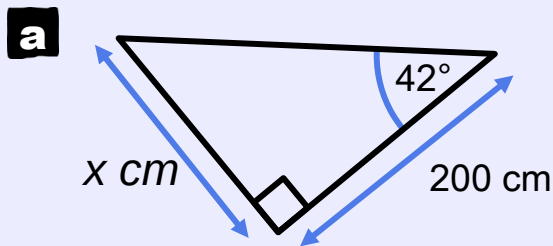
Ka bilow badhanka jajabka (fraction button) si ay u caddaato waxaad u baahan tahay inaad saarto tireeye (numerator) iyo hooseeye (denominator).

saamiga tan (tan ratio) ee xagasha ka soo horjeeda (opposite angle).

$$\frac{45}{45}$$

Isticmaalka xisaabiyaha (calculator) si hufan uga faa'iidaysta saamiga tan (tan ratio)

Isku dhig saddax-xagalka (triangle) xisaabta (calculation) helaya dhererka dhinaciisa maqan.

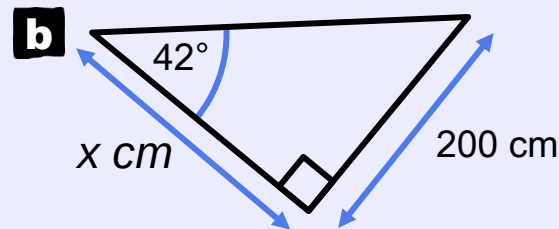


$$x = \frac{200}{\tan(42^\circ)}$$

c

$$x = \frac{\tan(42^\circ)}{200}$$

d



$$x = 200 \times \tan(42^\circ)$$

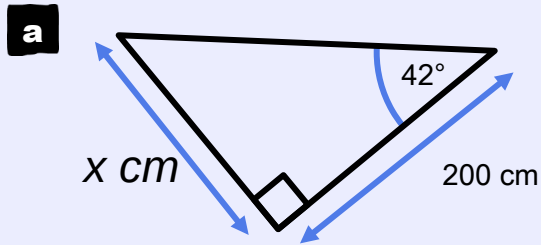
e

Isticmaalka xisaabiyaha (calculator) si hufan uga faa'iidaysta saamiga tan (tan ratio)



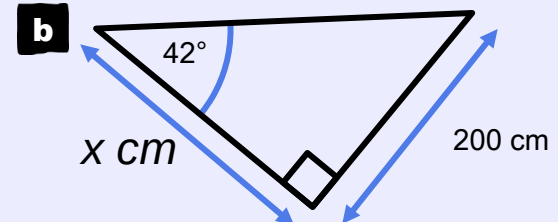
Hubi

Isku dhig saddax-xagalka (triangle) xisaabta (calculation) helaya dhererka dhinaciisa maqan.



$$x = 200 \times \tan(42^\circ)$$

e



$$x = \frac{200}{\tan(42^\circ)}$$

c

Sidaa awgeed, isticmaal xisaabiyaha (calculator) si aad u hesho dhererka dhinac kasta oo maqan oo lagu calaamadeeyay x (2 d.p.)

$$x = \frac{\tan(42^\circ)}{200}$$

d



1) Laga bilaabo kan ugu yar, dhiga dhererka dhinacyada saddexagalka qumman (right-angled) ee kala duwan si ay u kala horreeyaan.

$$\frac{0.4}{\tan(10^\circ)}$$

$$\frac{50}{\tan(70^\circ)}$$

$$50 \times \tan(70^\circ)$$

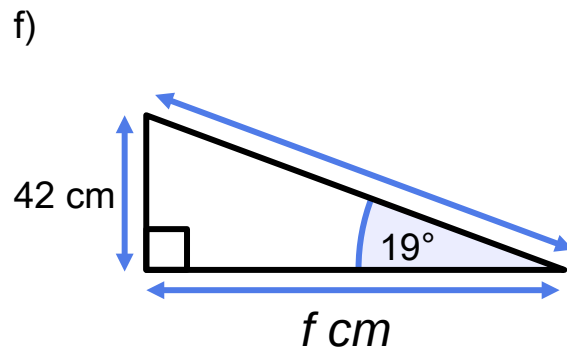
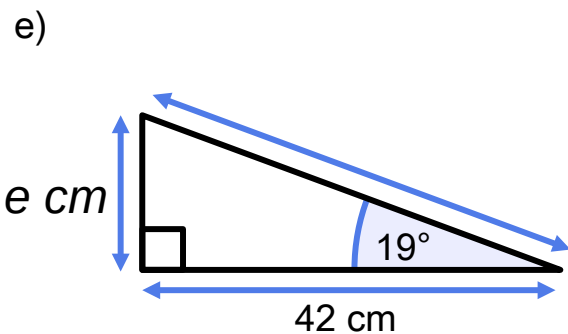
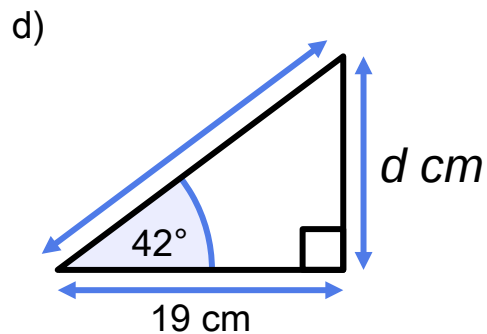
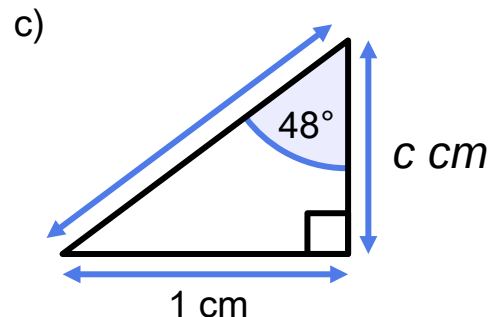
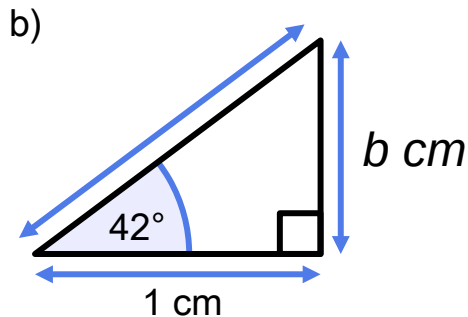
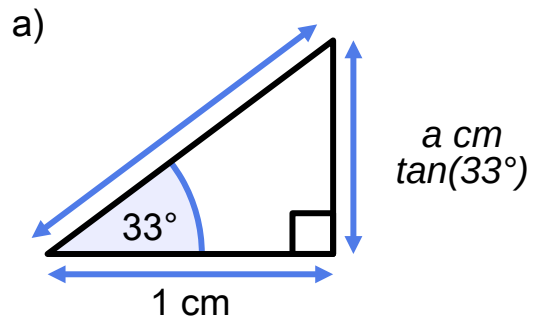
$$0.4 \times \tan(10^\circ)$$

$$0.4 \times \tan(70^\circ)$$

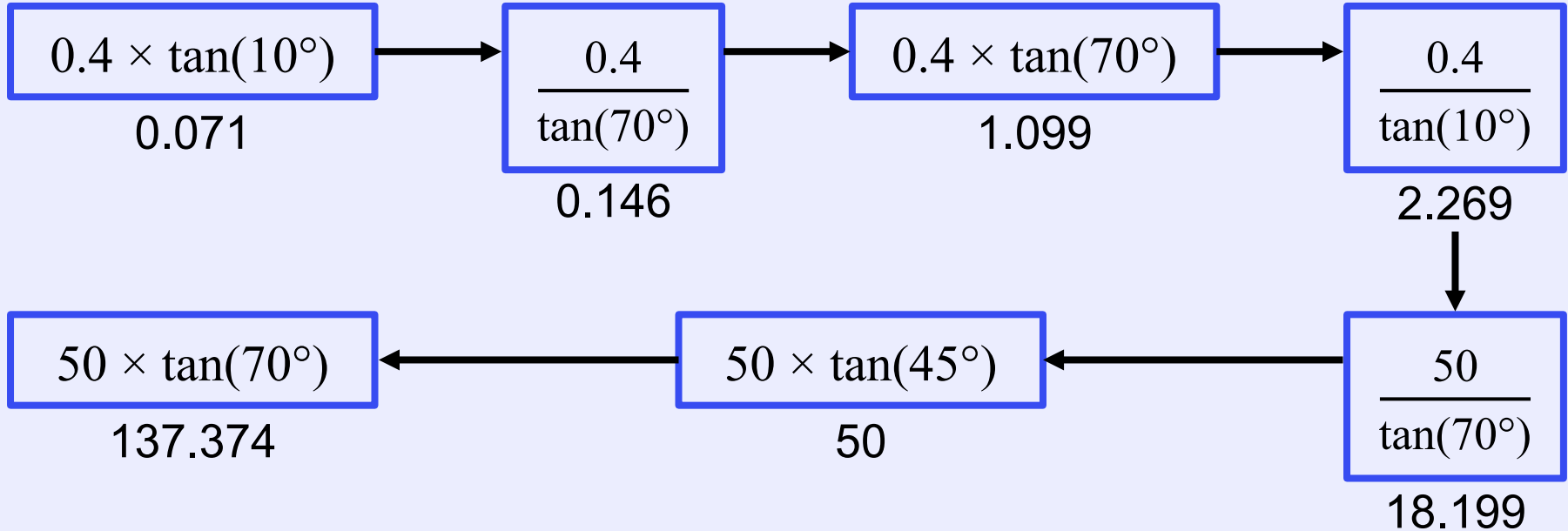
$$50 \times \tan(45^\circ)$$

$$\frac{0.4}{\tan(70^\circ)}$$

2) Raadi dhererka dhammaan dhinacyada maqan ee ku calaamaysan xaraf (3 d.p.)

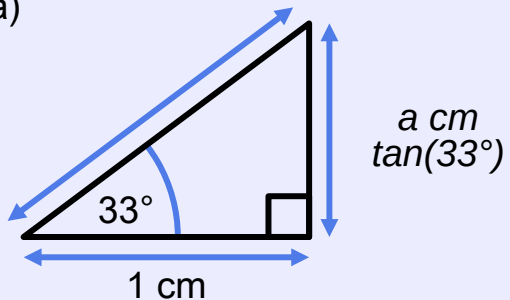


1) Laga bilaabo kan ugu yar, dhiga dhererka dhinacyada saddexagalka qumman ee kala duwan si ay u kala horreeyaan.



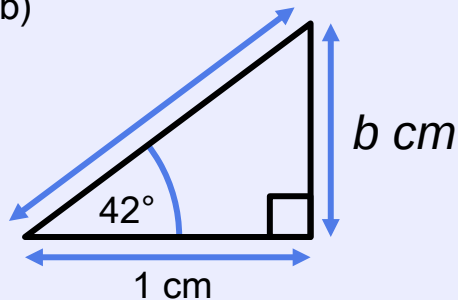
2) Raadi dhererka dhammaan dhinacyada maqan ee lagu calaamadeeyay xaraf (3 d.p.)

a)



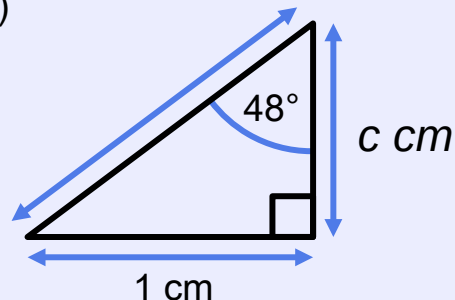
$$a = 0.649$$

b)



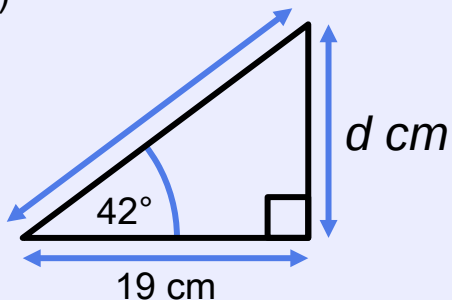
$$b = 0.900$$

c)



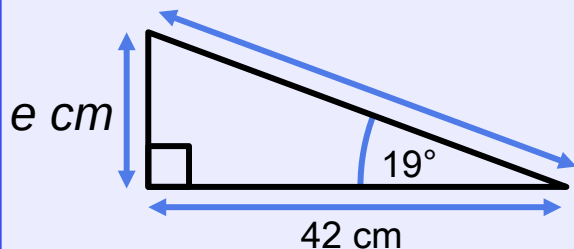
$$c = 0.900$$

d)



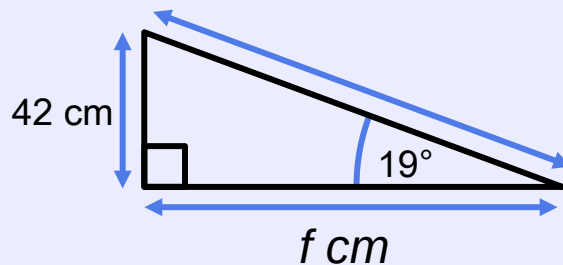
$$d = 17.108$$

e)



$$e = 14.462$$

f)



$$f = 121.977$$

Dhererka dhinac kasta oo ka soo horjeeda ama ku xiga xagal (θ°) saddexagal qumman (right-angled triangle) oo ka yimid goobada halbeegga (unit circle) waxaa laga heli karaa iyadoo la isticmaalo shaxda qiimaha trig (trig values) oo ay ku jirto saamiga tan (tan ratio). Saddexagalkan waa la weyneyn karaa (enlarged) taasina wali run ayay tahay.

Dhererka dhinaca ka soo horjeeda xagal kasta (θ°) saddexagal qumman (right-angled triangle) wuxuu la eg yahay dhinaca ku xiga (adjacent) $\times \tan(\theta^\circ)$.

Xisaabiyaha (calculator) waxaa loo isticmaali karaa in lagu helo dhererka dhinaca ka soo horjeeda ama dhinaca ku xiga (adjacent) ee saddexagal qumman (right-angled triangle) haddii midka kale la yaqaan.