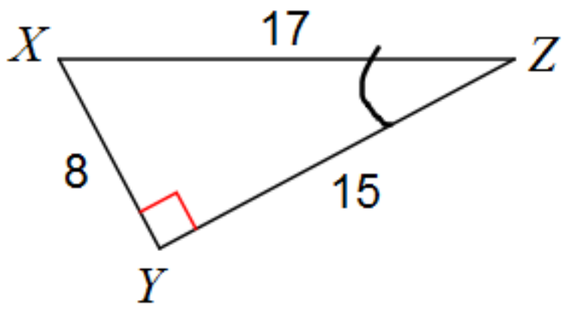
Find the value of each trigonometric ratio to the nearest ten-thousandth.

1) cos Z



SOHCAHTOA

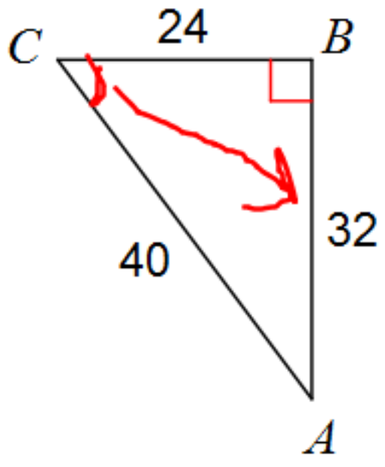
$\cos Z = \frac{adj}{hyp}$

$\cos Z = \frac{15}{17}$

$\cos Z = 0.8824$

Find the value of each trigonometric ratio to the nearest ten-thousandth.

3) tan C



$\tan C = \frac{Opp}{Adj}$

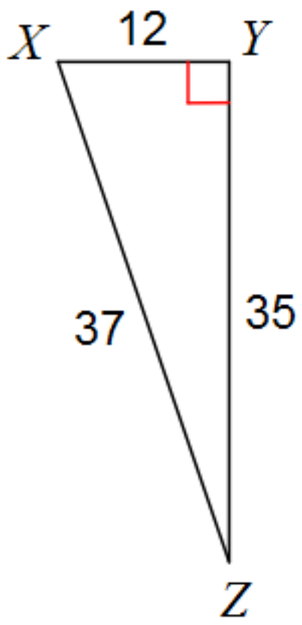
$\tan C = \frac{32}{24}$

$\frac{4}{3}$

$\tan C = 1.3333$

Find the value of each trigonometric ratio to the nearest ten-thousandth.

4) $\tan X$



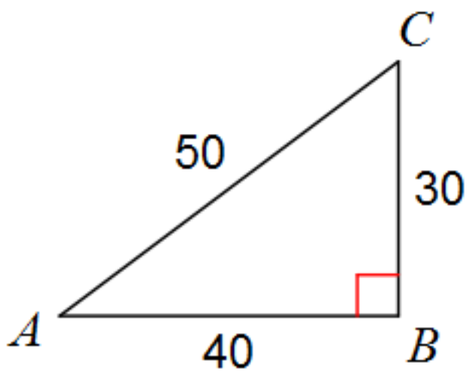
$\tan X = \frac{Opp}{Adj}$

$\tan X = \frac{35}{12}$

$\tan X = 2.9167$

Find the value of each trigonometric ratio to the nearest ten-thousandth.

5) cos C



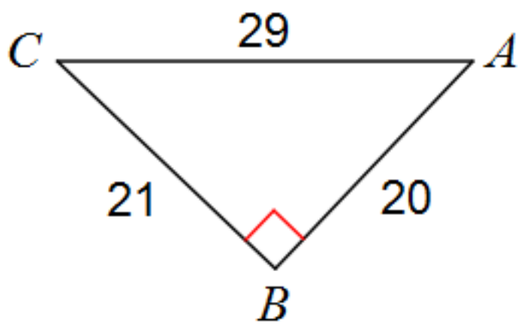
$\cos C = \frac{Adj}{Hyp}$

$\cos C = \frac{30}{50}$

$\cos = 0.6000$

Find the value of each trigonometric ratio to the nearest ten-thousandth.

6) sin A



$\sin A = \frac{O}{H}$

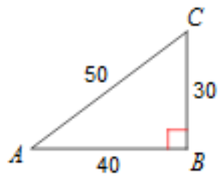
$\sin A = \frac{21}{29}$

$\sin = 0.7241$

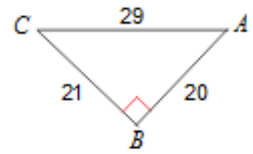
Find the value of each trigonometric ratio to the nearest ten-thousandth.

7) tan 61° = 1.8040

5) cos C



6) sin A



7) tan 61°

8) tan 44° = 0.9657

9) sin 51° = 0.7771

10) cos 75° = 0.2588

Find each angle measure to the nearest degree.

11) tan W = 0.9325

12) sin A = 0.7880

13) cos B = 0.9848

14) sin U = 0.9511

15) cos U = 0.9455

16) tan U = 2.4751

Find the measure of the indicated angle to the nearest degree.

17)

18)

Find each angle measure to the nearest degree.

11) tan W = 0.9325

$W = 43^\circ$

12) sin A = 0.7880

$A = 52^\circ$

13) cos B = 0.9848

$B = 10^\circ$

14) sin U = 0.9511

$U = 72^\circ$

15) cos U = 0.9455

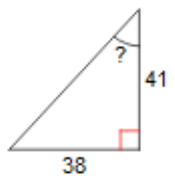
$U = 19^\circ$

16) tan U = 2.4751

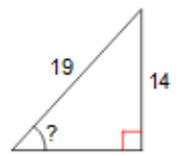
$U = 68^\circ$

Find the measure of the indicated angle to the nearest degree.

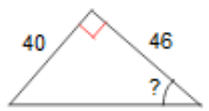
17)



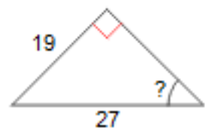
18)



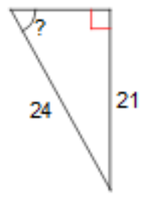
19)



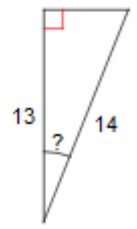
20)



21)

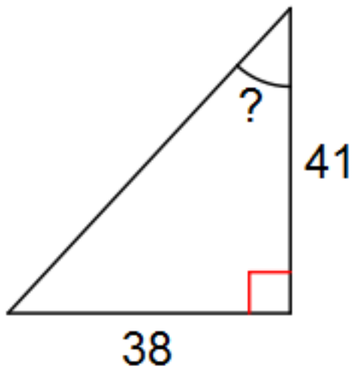


22)



Find the measure of the indicated angle to the nearest degree.

17)



$\angle C$

$\tan x = \frac{O}{A}$

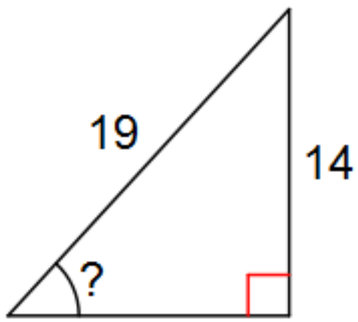
$\tan x = \frac{38}{41}$

$\tan x = 0.9268$

$\tan x = 43^{\circ}$

Find the measure of the indicated angle to the nearest degree.

18)



$\sin x = \frac{O}{H}$

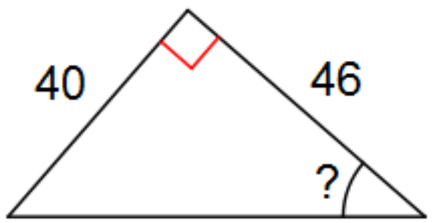
$\sin x = \frac{14}{19}$

$\sin x = 0.7368$

$x = 4$

Find the measure of the indicated angle to the nearest degree.

19)



x

$\tan x = \frac{O}{A}$

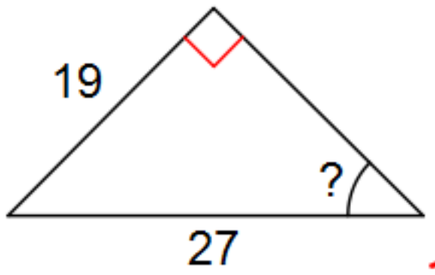
$\tan x = \frac{40}{46}$

$\tan x = 0.5696$

$x = 41^\circ$

Find the measure of the indicated angle to the nearest degree.

20)



x

$\sin x = \frac{O}{H}$

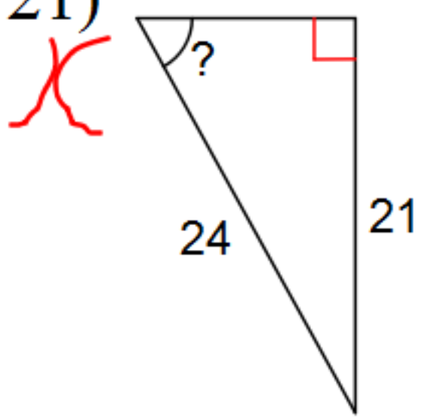
$\sin x = \frac{19}{27}$

$\sin x = 0.7037$

$x = 45^\circ$

Find the measure of the indicated angle to the nearest degree.

21)



$\sin(x) = \frac{O}{H}$

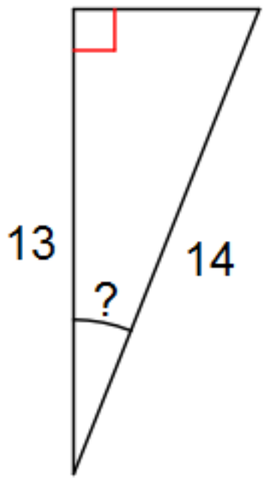
$\sin x = \frac{21}{24}$

$\sin x = 0.875$

$x = 61^\circ$

Find the measure of the indicated angle to the nearest degree.

22)



$\cos x = \frac{Adj}{Hyp}$

$\cos x = \frac{13}{14}$

x

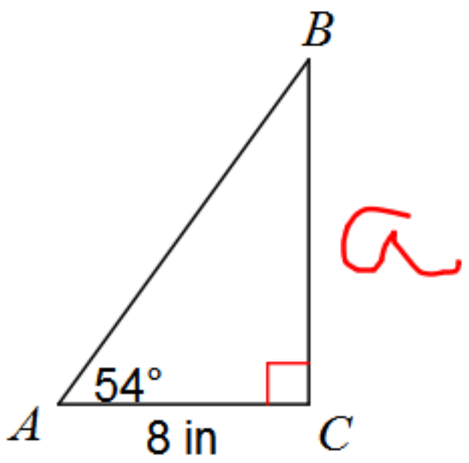
$\cos x = 0.9286$

$x = 21.7^\circ$

$x = 22^\circ$

Solve each triangle. Round answers to the nearest tenth.

1)



a

$\angle A = 54^\circ$ $a = 11.0$ in

$\angle B = 36^\circ$ $b = 8$ in

$\angle C = 90^\circ$ $c = 13.6$ in

$\angle B = 180 - (90 + 54)$

$\angle B = 180 - 144$

$\angle B = 36^\circ$

$a^2 + b^2 = c^2$

$11^2 + 8^2 = c^2$

$121 + 64 = c^2$

$\sqrt{185} = \sqrt{c^2}$

$c = 13.6$

$\tan A = \frac{O}{A}$

$\tan 54^\circ = \frac{a}{8}$

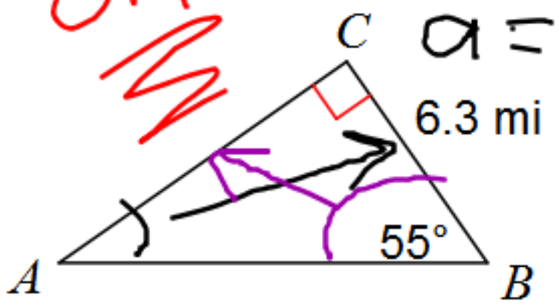
$a = 8 \tan 54^\circ$

$a = 11.0$

Solve each triangle. Round answers to the nearest tenth.

Test on Wed. Finish for homework!

2)



$\angle A = 35^\circ$ $a = 6.3$ mi

$\angle B = 55^\circ$ $b = 9.0$ mi

$\angle C = 90^\circ$ $c = 11$ mi

$\angle A = 180 - (90 + 55)$

$\angle A = 180 - 145$

$\angle A = 35^\circ$

$a^2 + b^2 = c^2$

$(6.3)^2 + (9.0)^2 = c^2$

$39.69 + 81 = c^2$

$120.7 = c^2$

$c = 10.98$

$c = 11$

$\tan B = \frac{O}{A}$

$\tan 55^\circ = \frac{b}{6.3}$

$b = 6.3 \tan 55^\circ$

$b = 8.997$

$b = 9.0$