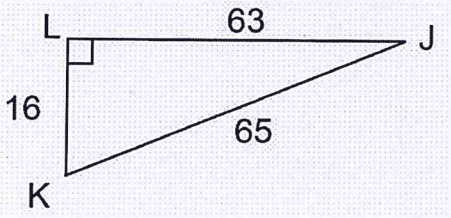
Practice #3 Geo Sine and Cosine Wednesday, March 18, 2020

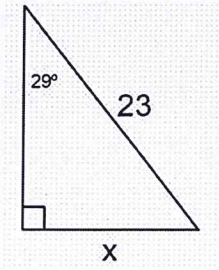
1. Write each as a ratio.



$\sin J =$ $\cos K =$ $\tan J =$

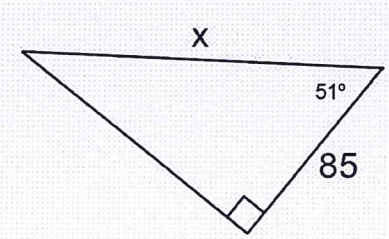
2. Find the value of x to the nearest hundredth in each triangle.

a.



$x =$

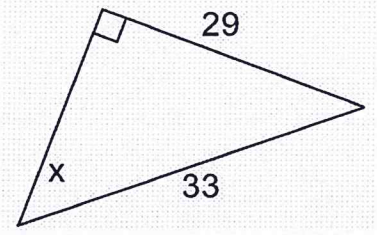
b.



$x =$

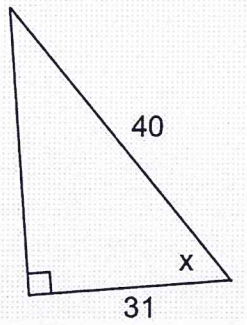
3. Find the measure of x to the nearest hundredth of a degree in each triangle.

a.



$x =$

b.

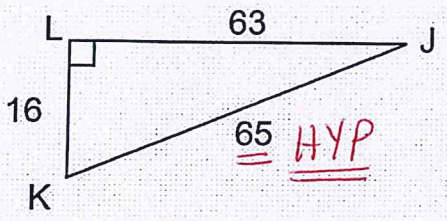


$x =$

Practice #3 Sine and Cosine Wednesday, March 18, 2020

ANSWERS

1. Write each as a ratio.

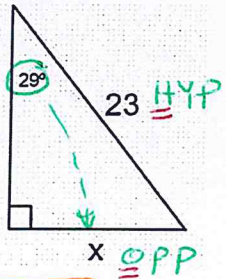


$\sin J = \frac{16}{65}$ $\cos K = \frac{16}{65}$ $\tan J = \frac{16}{63}$

$\sin J = \frac{opp}{hyp}$ $\cos K = \frac{adj}{hyp}$ $\tan J = \frac{opp}{adj}$

2. Find the value of x to the nearest hundredth in each triangle.

a.



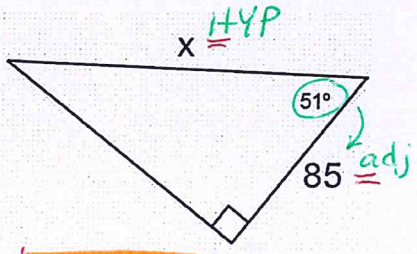
$x = 11.15$

SOH CAH TOA

$\sin 29° = \frac{x}{23}$

$x = 23 \sin 29° = 11.15$

b.



$x = 135.07$

SOH CAH TOA

$\cos 51° = \frac{85}{x}$

$\frac{\cos 51°}{1} = \frac{85}{x}$

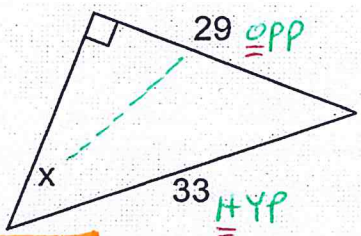
$x = (85)(1) \div \cos 51°$

$x = \frac{85}{\cos 51°}$

$= 135.07$

3. Find the measure of x to the nearest hundredth of a degree in each triangle.

a.



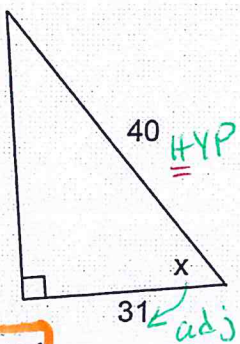
$x = 61.50°$

SOH CAH TOA

$\sin x = \frac{29}{33}$

$x = \sin^{-1}\left(\frac{29}{33}\right) = 61.50°$

b.



$x = 39.19°$

SOH CAH TOA

$\cos x = \frac{31}{40}$

$x = \cos^{-1}\left(\frac{31}{40}\right) = 39.19°$