

Starter $\text{sine} = \frac{\text{opp. leg}}{\text{hyp.}}$ 20 April 2017

Find the Sine, cosine and tangent of each acute angle.

1. $\text{Cosine} = \frac{\text{adj. leg}}{\text{hyp.}}$ $\text{Sin } R = \frac{45}{51} = \frac{15}{17}$
 $\text{Cos } R = \frac{24}{51} = \frac{8}{17}$
 $\text{tan } R = \frac{45}{24} = \frac{15}{8}$

$\text{tangent} = \frac{\text{opp. leg}}{\text{adj. leg}}$ $\text{sin } S = \frac{24}{51} = \frac{8}{17}$
 $\text{cos } S = \frac{45}{51} = \frac{15}{17}$
 $\text{tan } S = \frac{24}{45} = \frac{8}{15}$

Soh Cah Toa

S **C** **T**

$\text{Sine} = \frac{\text{opp leg}}{\text{hyp}}$ $\text{Cosine} = \frac{\text{adj leg}}{\text{hyp}}$
 $\text{tangent} = \frac{\text{opp. leg}}{\text{adj. leg}}$

Finding Side Length SohCahToa

1) \Rightarrow Put your calculator on degrees (Mode)

Cah angle

$\frac{\text{Cos } 42}{1} = \frac{X}{14}$

$14 \cos 42 = X$
 $10.4 = X$

calculator ready

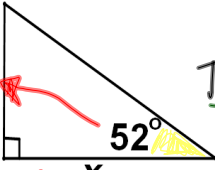
Finding Side Length SohCahToa

2)

$\frac{\text{Sin } 78 = \frac{10}{X}}{1} = \frac{10}{X}$

$X \cdot \sin 78 = \frac{10}{\sin 78}$

$X = \frac{10}{\sin 78}$
 $X = 10.2$

3)  Soh Cah Toa

opp. leg 4
adj. leg x

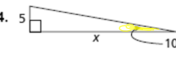
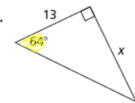

$$\tan 52 = \frac{4}{x}$$

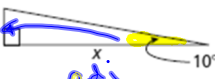
$$\cancel{x} \tan 52 = \frac{4}{\cancel{\tan 52}}$$

$$x = \frac{4}{\tan 52} = \boxed{x = 3.1}$$

O
A

In Exercises 4-6, find the value of x. Round your answer to the nearest tenth.

4.  5.  6. 

4.  Toa


opp. leg 5
adj. leg x

$$\tan 10 = \frac{5}{x}$$

$$\cancel{x} \tan 10 = \frac{5}{\cancel{\tan 10}}$$

$$x = \frac{5}{\tan 10}$$

$$\boxed{x = 28.4}$$

5.  Toa

adj. leg x
opp. leg 13

$$\tan 64 = \frac{x}{13}$$

$$\cancel{13} \tan 64 = \frac{x}{\cancel{13}}$$

$$13 \tan 64 = x$$

$$\boxed{26.7 = x}$$

