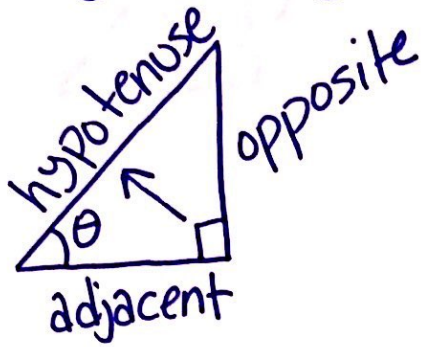


# 7.1: Right Triangle Trig



SOH  
i p p  
n p p

CAH  
o d y  
s j p

TOA  
a p d  
n p j

$$\sin \theta = \frac{\text{opp}}{\text{hyp}}$$

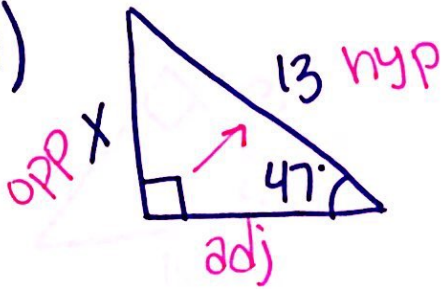
$$\cos \theta = \frac{\text{adj}}{\text{hyp}}$$

$$\tan \theta = \frac{\text{opp}}{\text{adj}}$$

\* make sure  
calc is in  
degree mode!

Solve for X

Ex 1)

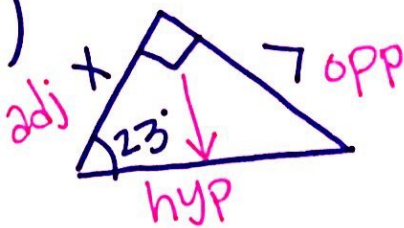


$$\sin 47 = \frac{X}{13}$$

$$13 \cdot .72 = \frac{X}{13} \cdot 13$$

$$\boxed{X = 9.51}$$

Ex 2)

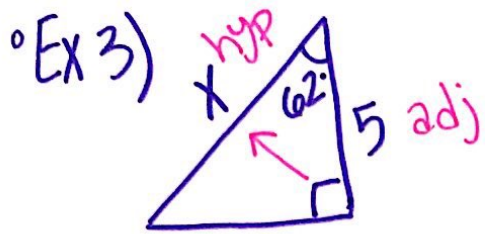


$$\tan 23 = \frac{7}{X}$$

$$X \cdot .40 = \frac{7}{X} \cdot X$$

$$\frac{.40 X}{.40} = \frac{7}{.40}$$

$$\boxed{X = 16.49}$$



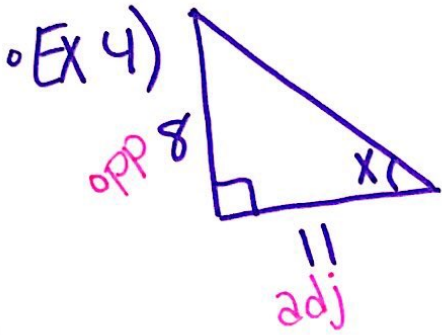
$$\cos 62 = \frac{5}{x}$$

$$x \cdot \cos 62 = \frac{5}{x} \cdot x$$

$$\cancel{.4} x = \frac{5}{\cancel{.4}}$$

$$x = 10.65$$

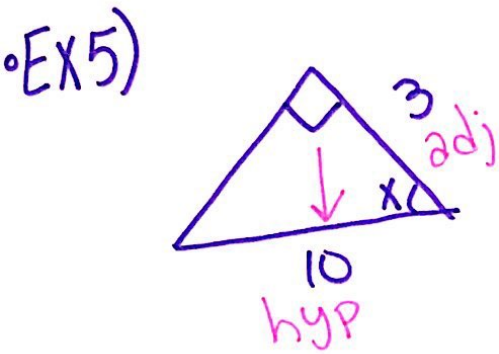
2<sup>nd</sup> → tan  
sin  
cos



$$\tan x = \frac{8}{11}$$

$$x = \tan^{-1}\left(\frac{8}{11}\right)$$

$$x = 36.03^\circ$$



$$\cos x = \frac{3}{10}$$

$$x = \cos^{-1}\left(\frac{3}{10}\right)$$

$$x = 72.54^\circ$$