

$$\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}} = \frac{b}{h}$$

$$\cos \theta = \frac{\text{adjacent}}{\text{hypotenuse}} = \frac{a}{h}$$

$$\tan \theta = \frac{\text{opposite}}{\text{adjacent}} = \frac{b}{a}$$

SOH CAH TOA
 ↑↑↑ ↑↑↑ ↑↑↑

SOH

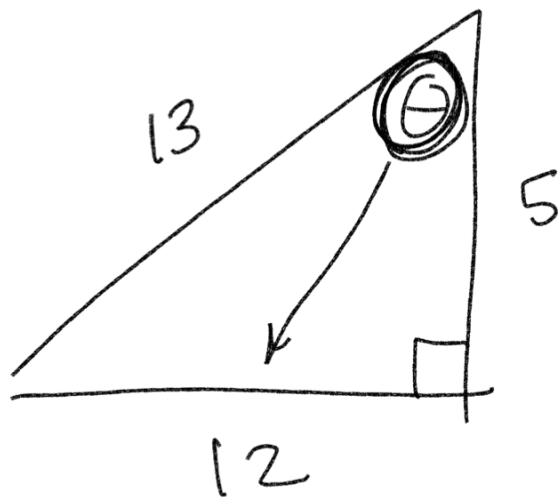
$$\text{sine} = \frac{\text{opp}}{\text{hyp}}$$

CAH

$$\text{cosine} = \frac{\text{adj}}{\text{hyp}}$$

TOA

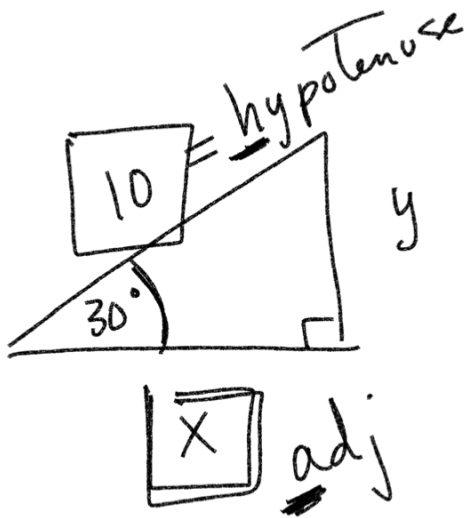
$$\text{tangent} = \frac{\text{opp}}{\text{adj}}$$



$$\sin \theta = \frac{5}{13}$$

$$\cos \theta = \frac{12}{13}$$

$$\tan \theta = \frac{12}{5}$$



$$\cos 30^\circ = \frac{\text{adj}}{\text{hyp}}$$

$$10(\cos 30^\circ) = \left(\frac{x}{10}\right)10$$

$$10(\cos 30^\circ) = x$$

$$\boxed{8.6 = x}$$

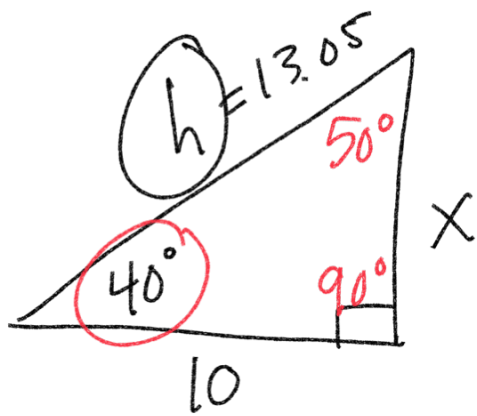
SOH CAH TOA
 ↑↑

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

$$10(\sin 30^\circ) = \left(\frac{y}{10}\right)10$$

$$y = 10(\sin 30)$$

$$\boxed{y = 5}$$



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

$$\cos 40^\circ = \frac{10}{h}$$

$$h = \frac{10}{\cos 40^\circ}$$

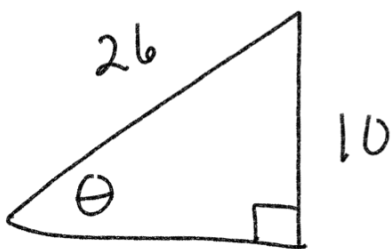
$$h = 13.05$$

$$3 = \frac{12}{4}$$

$$4 = \frac{12}{3}$$

$$10(\tan 40^\circ) = \left(\frac{X}{10}\right)10$$

$$10(\tan 40^\circ) = X = \boxed{8.4}$$



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

$$\sin \theta = \frac{10}{26}$$

$$\theta = \sin^{-1}\left(\frac{10}{26}\right)$$

$$\theta = \boxed{22.6^\circ}$$

