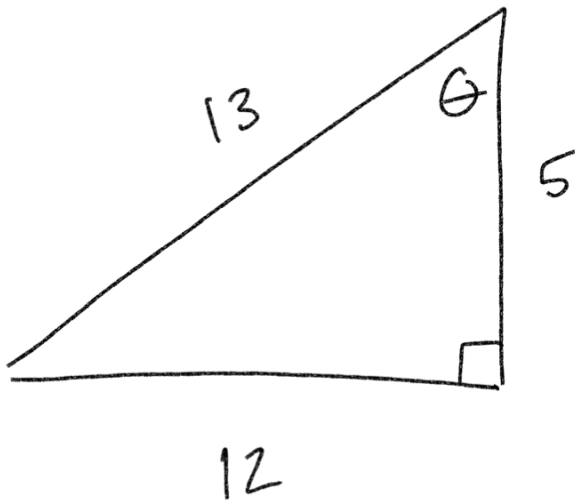


$$\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}} = \frac{b}{h}$$

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

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

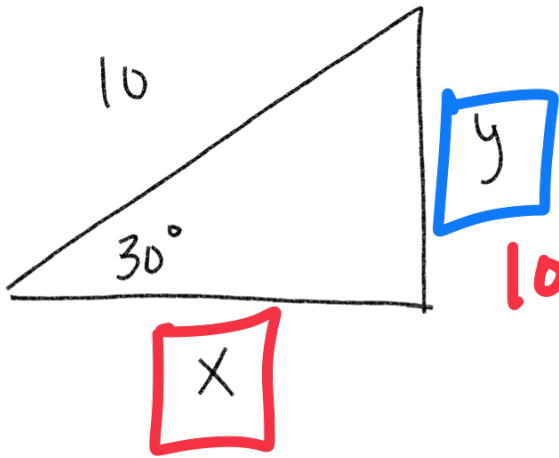
SOH CAH TOA



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

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

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



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

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

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

$$x = 8.66$$

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

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

$$y = 10 \sin 30^\circ = 5$$

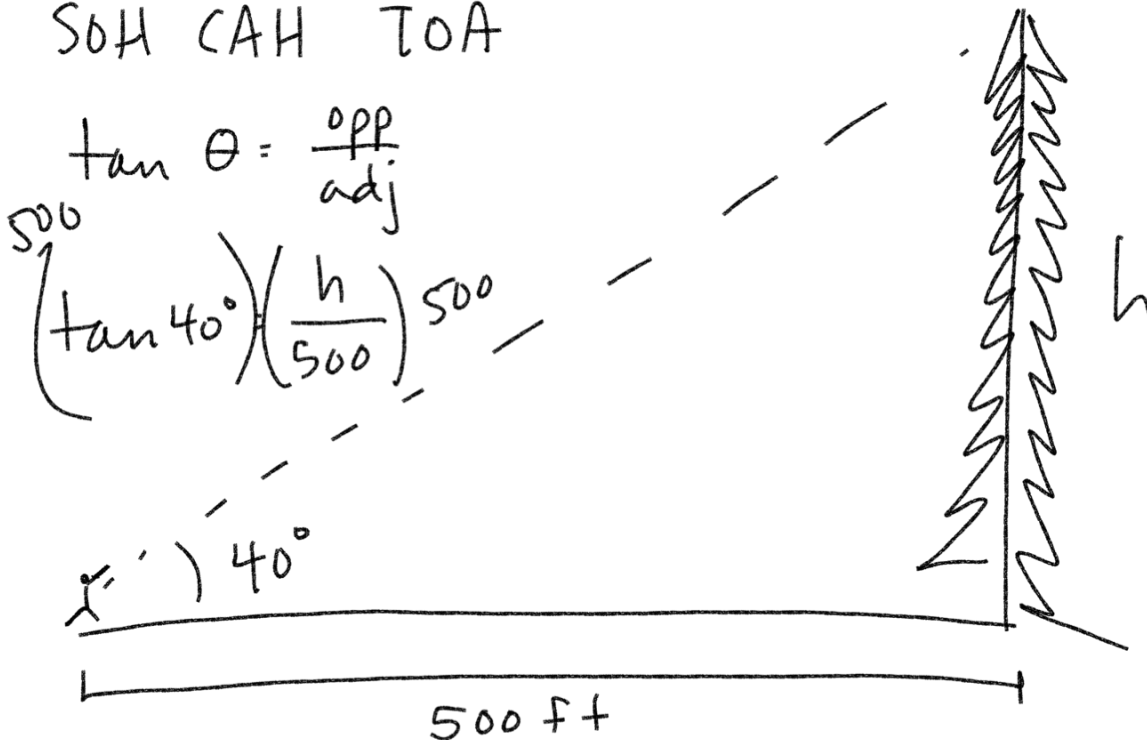
SOH CAH TOA

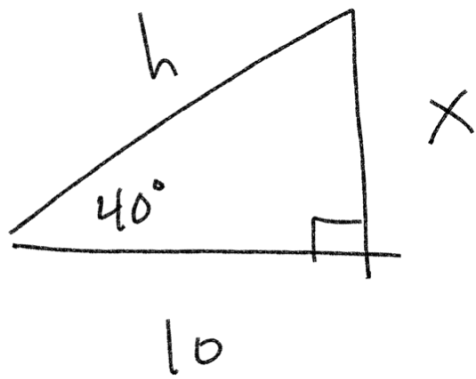
$$\tan \theta = \frac{\text{opp}}{\text{adj}}$$

$$500 (\tan 40^\circ) = \left(\frac{h}{500}\right) 500$$

$$500 \tan 40^\circ = h$$

$$419.6 \text{ ft}$$





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

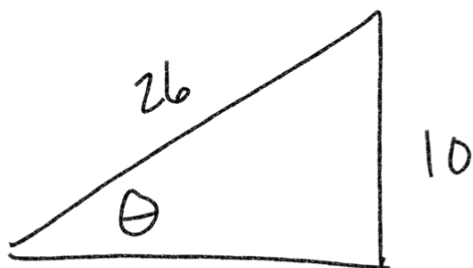
$$X = 10 \tan 40$$

$$X = 8.4$$

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

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

$$h = \frac{10}{\cos 40} = 13.1$$



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

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

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

$$= 22.6^\circ$$

$$\tan \theta = \frac{4800}{100}$$

$$\theta = \tan^{-1} \left(\frac{4800}{100} \right)$$

$$\theta = 88.8^\circ$$

