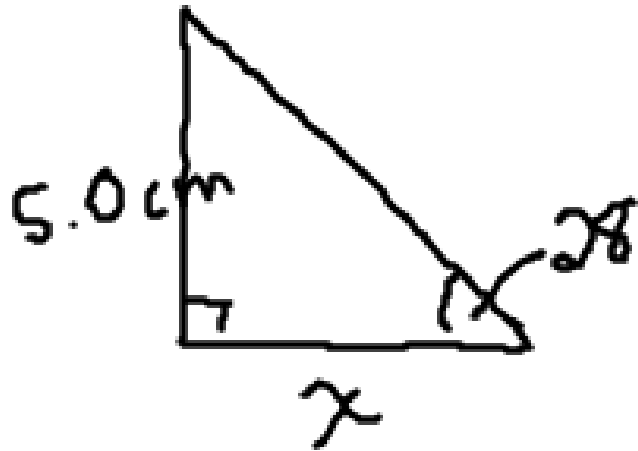


HW Review

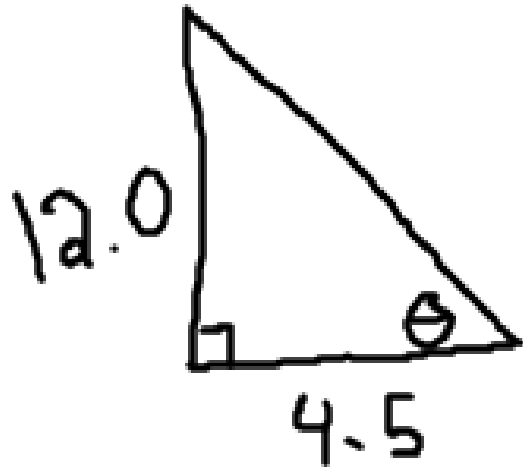
$$\tan \theta = \frac{O}{A}$$



$$(x) \tan 28 = \frac{5.0}{x} (x)$$

$$\frac{x \tan 28}{\tan 28} = \frac{5.0}{\tan 28}$$

$$x = \frac{5.0}{\tan 28} = 9.4 \text{ cm}$$



$$\tan \theta = \frac{O}{A}$$

$$\tan \theta = \frac{12.0}{4.5}$$

$$\theta = \tan^{-1} \left(\frac{12.0}{4.5} \right)$$

$$\theta = 69.4^\circ$$

Q. 82

3 d.



$$\tan \theta = \frac{O}{A}$$

$$(8.0) \tan 43 = \frac{m}{8.0} (8.0)$$

$$(8.0) \tan 43 = m$$

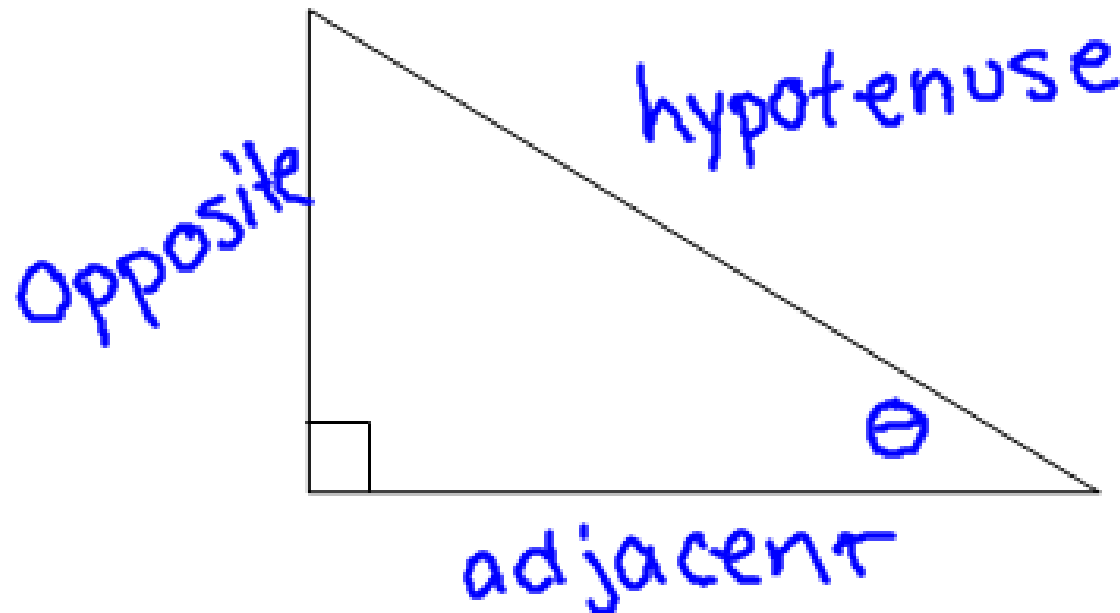
$$7.5 \text{ cm} = m$$

2.4 The Sine and Cosine Ratios

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

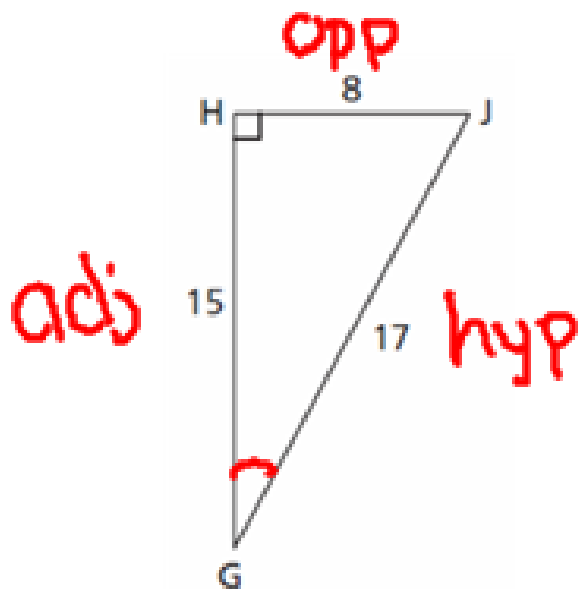
$$\cos \theta = \frac{\text{adj}}{\text{hyp}}$$

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



'SOH CAH TOA'

1. a) In $\triangle GHJ$, identify the side opposite $\angle G$ and the side adjacent to $\angle G$.
- b) Determine $\sin G$ and $\cos G$ to the nearest hundredth.



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

$$\sin G = \frac{8}{17}$$

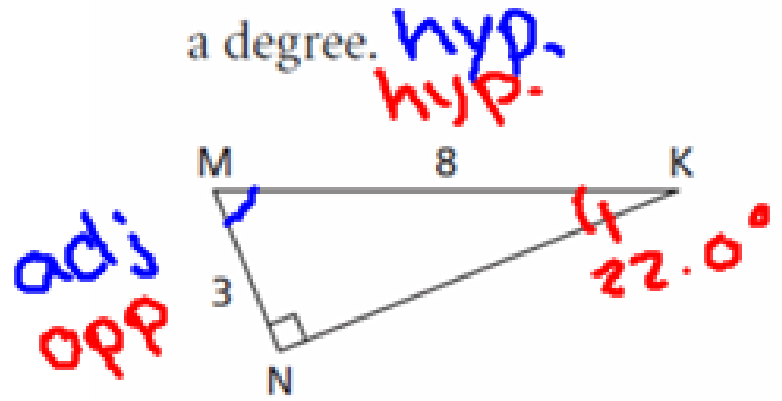
$$\sin G = 0.47$$

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

$$\cos G = \frac{15}{17}$$

$$\cos G = 0.88$$

2. Determine the measures of $\angle K$ and $\angle M$ to the nearest tenth of a degree.



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

$$\sin K = \frac{3}{8}$$

$$\angle K = \sin^{-1}\left(\frac{3}{8}\right)$$

$$\angle K = 22.0^\circ$$

$$\textcircled{1} \angle M = 90^\circ - 22.0^\circ = 68.0^\circ$$

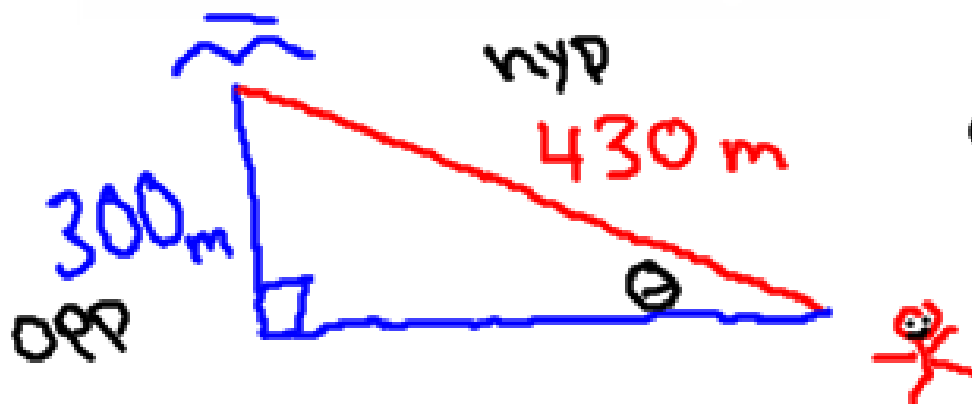
OR
 $\textcircled{2}$

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

$$\cos \theta = \frac{3}{8}$$

$$\theta = \cos^{-1}\left(\frac{3}{8}\right) = 67.97^\circ = 68.0^\circ$$

3. An observer is sitting on a dock watching a float plane in Vancouver harbour. At a certain time, the plane is 300 m above the water and 430 m from the observer. Determine the angle of elevation of the plane measured from the observer, to the nearest degree.



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

$$\sin \theta = \frac{300}{430}$$

$$\theta = \sin^{-1}\left(\frac{300}{430}\right)$$

$$\theta = 44^\circ$$

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