

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

$$\sin x = \frac{4}{5}$$

$$= 0.8$$

$$x = \sin^{-1}(0.8)$$

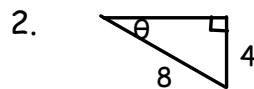
$$= 53^\circ$$

Formulas

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

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

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

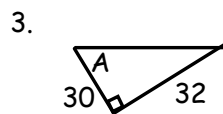


$$\sin \theta = \frac{\text{opp}}{\text{hyp}}$$

$$\sin \theta = \frac{4}{8}$$

$$\theta = \sin^{-1}(0.5)$$

$$= 30^\circ$$



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

$$\tan A = \frac{32}{30}$$

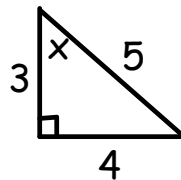
$$A = \tan^{-1}(32/30)$$

$$= 47^\circ$$

Homework

1.  $\tan 35^\circ = \underline{0.7002}$

2. Find  $x$



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

$$\sin x = \frac{4}{5}$$

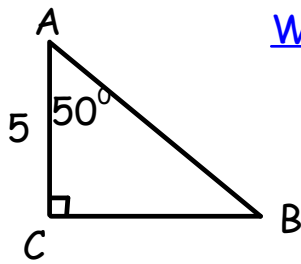
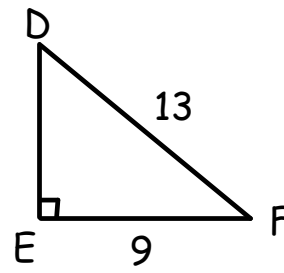
$$x = \sin^{-1}(0.8)$$

$$= 53^\circ$$

3.  $\sin \theta = 0.6345$ . Find  $\theta$

$$\theta = \sin^{-1}(0.6345)$$

$$= 39^\circ$$

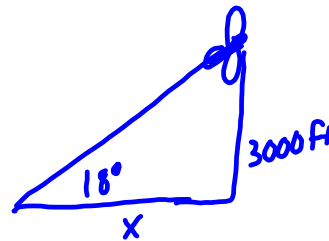
Worksheeta) Find  $BC$ a) Find  $\angle F$ b) Find  $AB$ b) Find  $DE$ c) Find  $\angle B$ c) Find  $\angle D$ 

- Word Problems

1. Create a diagram

2. Identify the given data

3. Select a formula



$$\tan 18^\circ = \frac{3000}{x}$$

$$2x = 8$$

$$\frac{(\cancel{\tan 18})x}{\cancel{\tan 18}} = \frac{3000}{\cancel{\tan 18}}$$

$$x = \frac{3000}{\tan 18} \\ = 9233.1 \text{ ft}$$