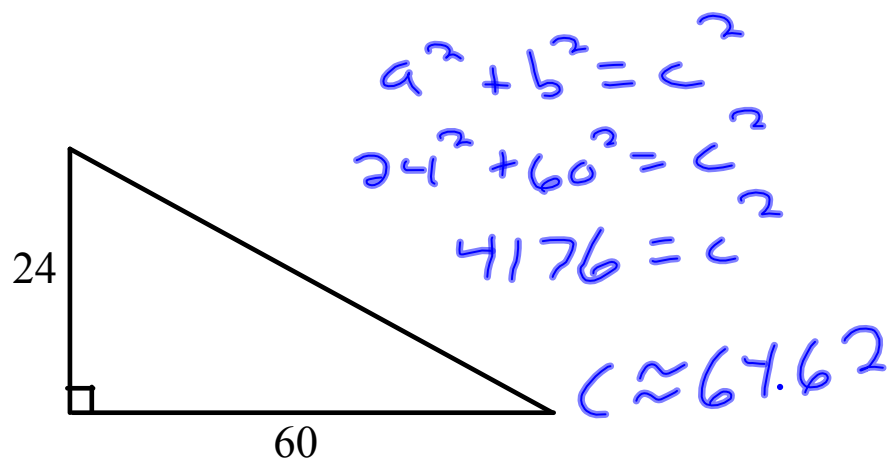
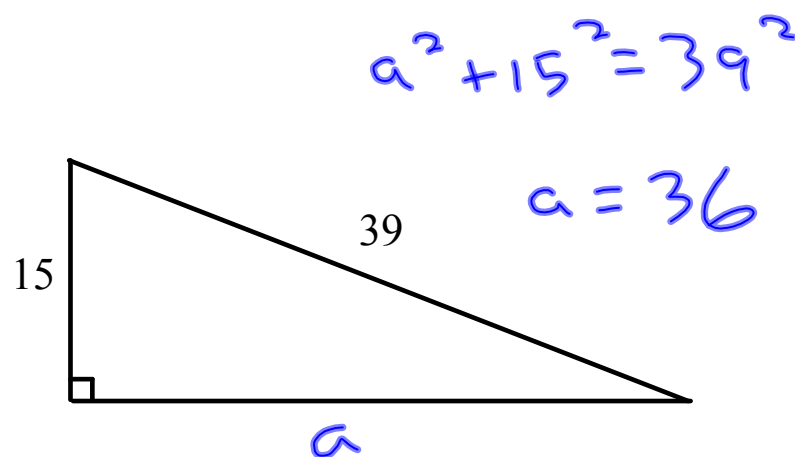


## Unit 6 Notes - Right Triangles

Ex. 1 Find the measure of the missing side.



Ex. 2 Find the measure of the missing side.



Ex. 3 Tell whether the given side lengths can represent the sides of a right triangle.

$$4, 9, 2\sqrt{29}$$

$$4^2 + 9^2 \stackrel{?}{=} (2\sqrt{29})^2$$

$$97 \stackrel{?}{=} 116 \quad (2\sqrt{29})^2$$

NO

Ex. 4 Find the following trigonometric ratios.

$$\sin A \quad \frac{15}{25}$$

$$\cos A \quad \frac{20}{25}$$

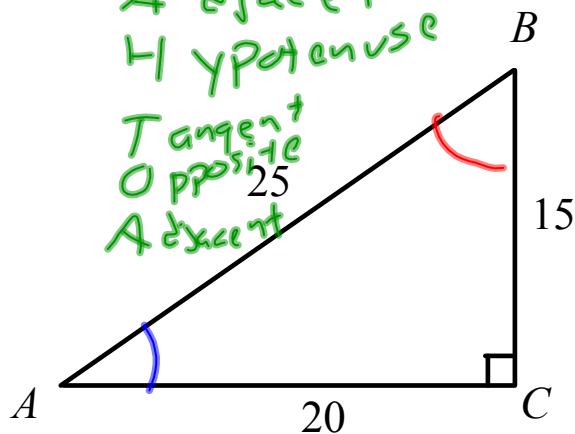
$$\tan A \quad \frac{15}{20}$$

$$\sin B \quad \frac{20}{25}$$

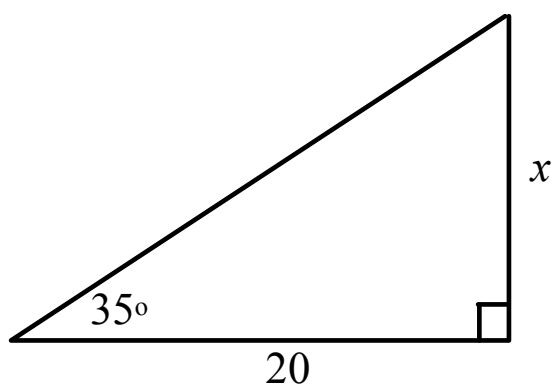
$$\cos B \quad \frac{15}{25}$$

$$\tan B \quad \frac{20}{15}$$

Sine  
O pposite  
H ypotenuse  
Cosine  
A djacent  
H ypotenuse  
Tangent  
O pposite  
A djacent



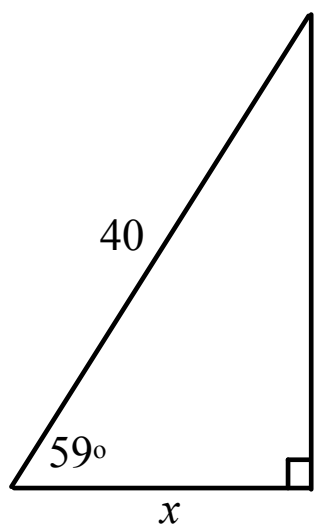
Ex. 5 Find the value of  $x$ .



$$\tan 35^\circ = \frac{x}{20}$$

$$x \approx 14$$

Ex. 6 Find the value of  $x$ .



$$\cos 59^\circ = \frac{x}{40}$$

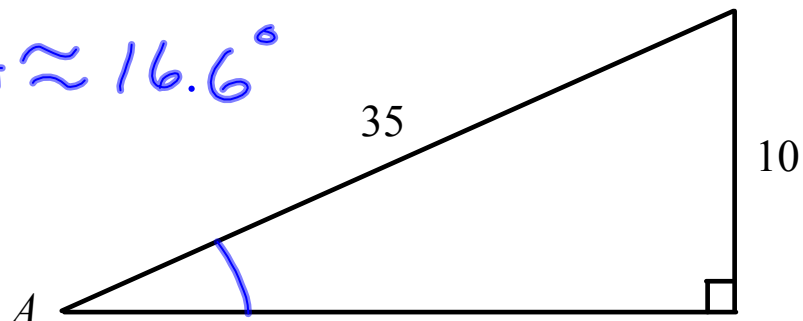
$$40 \cos 59^\circ = x$$

$$20.6 \approx x$$

Ex. 7 Find the measure of angle  $A$

$$\cancel{\sin} \sin A = \frac{\sin^{-1} 10}{35}$$

$$A \approx 16.6^\circ$$

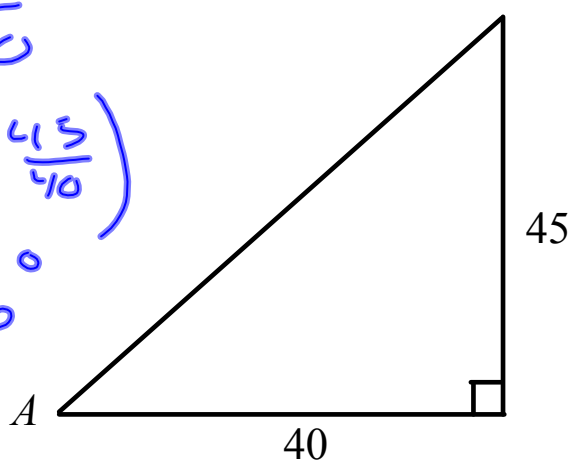


Ex. 8 Find the measure of angle  $A$

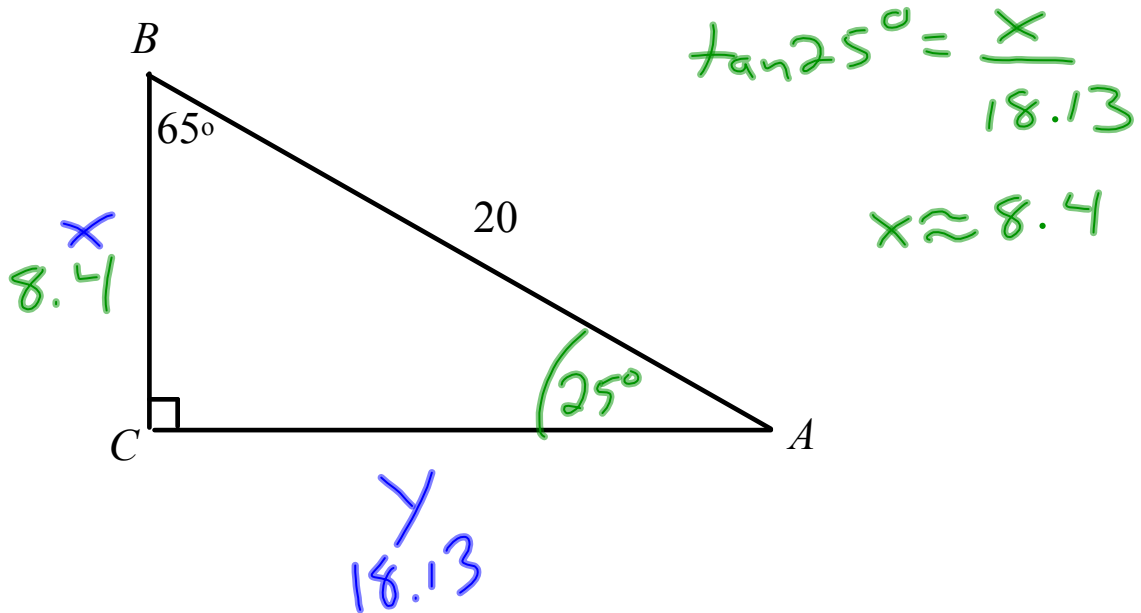
$$\tan A = \frac{45}{40}$$

$$A = \tan^{-1}\left(\frac{45}{40}\right)$$

$$A \approx 48.36^\circ$$



Ex. 9 Solve the right triangle.



Ex. 10 Solve the right triangle.

