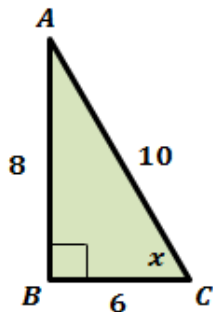


Right Triangle Trigonometry Assignment

Write the trigonometric ratios for the triangle shown below.



1. $\sin(A) =$ _____

2. $\cos(A) =$ _____

3. $\tan(A) =$ _____

4. $\sec(A) =$ _____

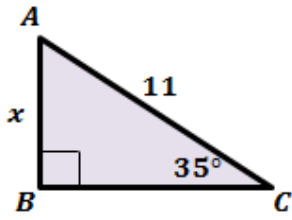
5. $\operatorname{cosec}(A) =$ _____

6. $\cot(A) =$ _____

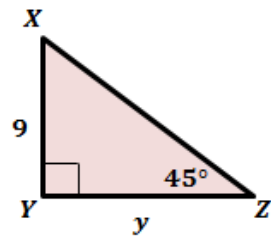
Right Triangle Trigonometry Assignment

Find the unknown variable in each triangle. Round the answer to the nearest tenth.

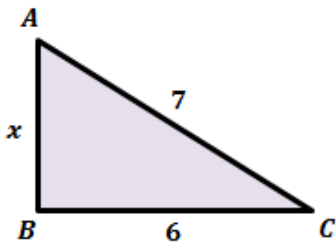
1.



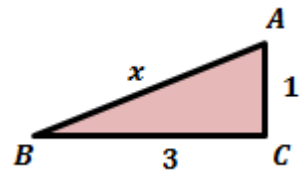
2.



3.

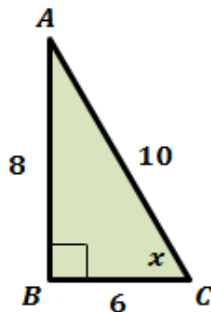


4.



Right Triangle Trigonometry Assignment**Answers**

Write the trigonometric ratios for the triangle shown below.



1. $\sin(A) = \frac{3}{5}$

$$\sin(A) = \frac{\text{opposite}}{\text{hypotenuse}}$$

$$\sin(A) = \frac{6}{10} = \frac{3}{5}$$

2. $\cos(A) = \frac{4}{5}$

$$\cos(A) = \frac{\text{adjacent}}{\text{hypotenuse}}$$

$$\cos(A) = \frac{8}{10} = \frac{4}{5}$$

3. $\tan(A) = \frac{3}{4}$

$$\tan(A) = \frac{\text{opposite}}{\text{adjacent}}$$

$$\tan(A) = \frac{6}{8} = \frac{3}{4}$$

4. $\sec(A) = \frac{5}{4}$

$$\sec(A) = \frac{\text{hypotenuse}}{\text{adjacent}} = \frac{1}{\cos(A)}$$

$$\sec(A) = \frac{1}{\frac{4}{5}} = \frac{5}{4}$$

5. $\operatorname{cosec}(A) = \frac{5}{3}$

$$\operatorname{cosec}(A) = \frac{\text{hypotenuse}}{\text{opposite}} = \frac{1}{\sin(A)}$$

$$\operatorname{cosec}(A) = \frac{1}{\frac{3}{5}} = \frac{5}{3}$$

6. $\cot(A) = \frac{4}{3}$

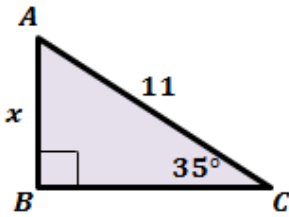
$$\cot(A) = \frac{\text{adjacent}}{\text{opposite}} = \frac{1}{\tan(A)}$$

$$\cot(A) = \frac{1}{\frac{3}{4}} = \frac{4}{3}$$

Right Triangle Trigonometry Assignment

Find the unknown variable in each triangle. Round the answer to the nearest tenth.

1.



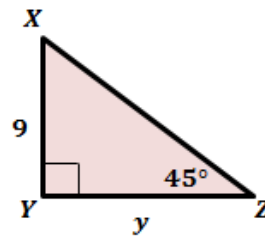
$$\sin(C) = \frac{\text{opposite}}{\text{hypotenuse}}$$

$$\sin(35^\circ) = \frac{x}{11}$$

$$x = 11 \times \sin(35^\circ)$$

$$x = 6.3$$

2.



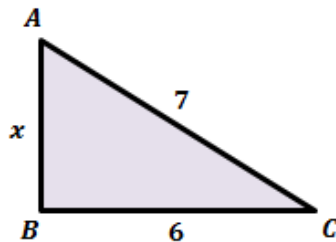
$$\tan(Z) = \frac{\text{opposite}}{\text{adjacent}}$$

$$\tan(45^\circ) = \frac{9}{y}$$

$$y = \frac{9}{\tan(45^\circ)} = \frac{9}{1}$$

$$y = 9$$

3.



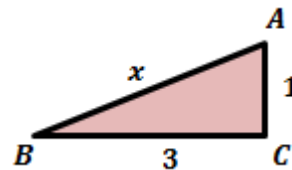
$$7^2 = x^2 + 6^2$$

$$x^2 = 49 - 36$$

$$x = \sqrt{49 - 36}$$

$$x = \sqrt{13}$$

4.



$$x^2 = 1^2 + 3^2$$

$$x^2 = 1 + 9$$

$$x = \sqrt{1 + 9}$$

$$x = \sqrt{10}$$