

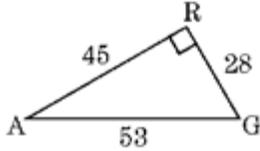
Name: _____

Unit 5 - Trigonometry

5.4 - Finding Lengths of Unknown Sides in a Right Triangle

Warm Up

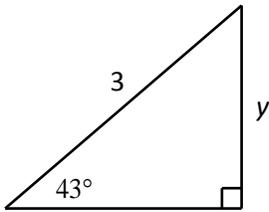
For the triangle given below, find the values of $\sin(G)$, $\cos(G)$, $\tan(G)$



The 3 trigonometric ratios can be used to find the unknown lengths of right triangles.

Remember: $\sin(\theta) = \frac{O}{H}$, $\cos(\theta) = \frac{A}{H}$, $\tan(\theta) = \frac{O}{A}$

Examples – Find the length of the unknown side in each triangle given below.



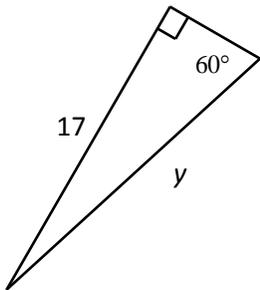
$\theta =$ Opp = Adj = Hyp =

$$\frac{O}{H} = \frac{\quad}{\quad}$$

$$\frac{A}{H} = \frac{\quad}{\quad}$$

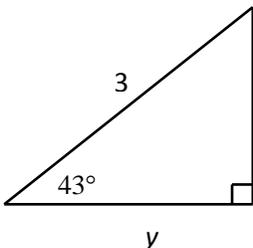
$$\frac{O}{A} = \frac{\quad}{\quad}$$

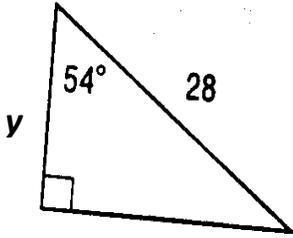
Use:



$\theta =$ Opp = Adj = Hyp =

$\theta =$ Opp = Adj = Hyp =



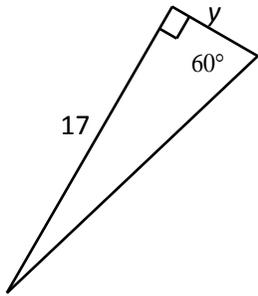


$\theta =$

Opp =

Adj =

Hyp =

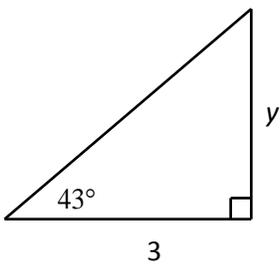


$\theta =$

Opp =

Adj =

Hyp =

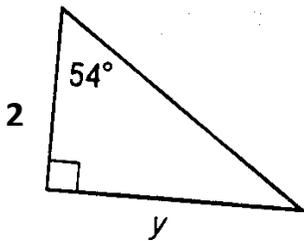


$\theta =$

Opp =

Adj =

Hyp =

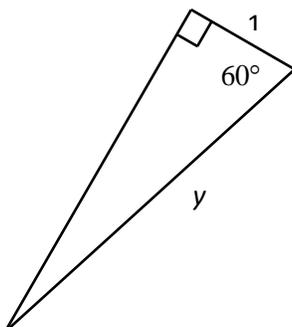


$\theta =$

Opp =

Adj =

Hyp =



$\theta =$

Opp =

Adj =

Hyp =