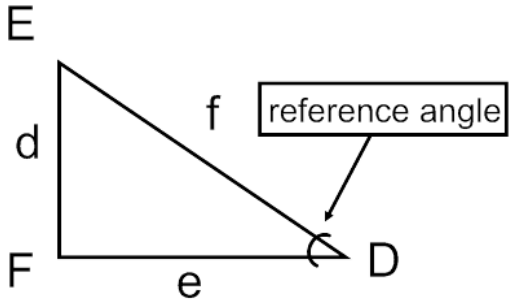
Trigonometry – Exploring the Ratios

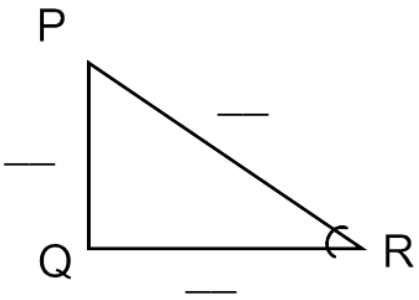
For each triangle below the reference angle has been marked. **Fill in the blanks.**



Reference Angle: D

opposite: d adjacent: e hypotenuse: f

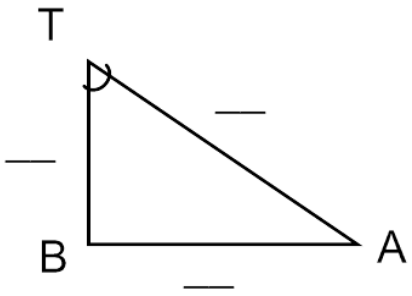
$\sin(D) = \frac{d}{f}$ $\cos(D) = \frac{e}{f}$ $\tan(D) = \frac{d}{e}$



Reference Angle: R

opposite: r adjacent: p hypotenuse: q

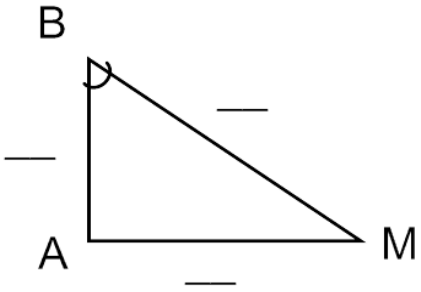
$\sin(R) = \frac{r}{\_\_}$ $\cos(R) = \frac{\_\_}{q}$ $\tan(R) = \frac{\_\_}{p}$



Reference Angle: T

opposite: ___ adjacent: ___ hypotenuse: ___

$\sin(T) = \frac{\_\_}{\_\_}$ $\cos(T) = \frac{\_\_}{\_\_}$ $\tan(T) = \frac{\_\_}{\_\_}$

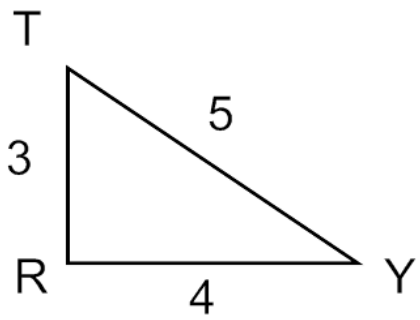


Reference Angle: ___

opposite: ___ adjacent: ___ hypotenuse: ___

$\sin(\quad) = \frac{\_\_}{\_\_}$ $\cos(\quad) = \frac{\_\_}{\_\_}$ $\tan(\quad) = \frac{\_\_}{\_\_}$

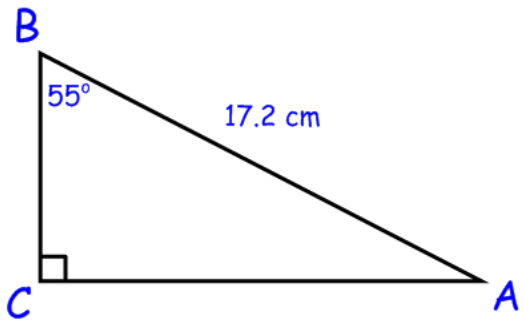
For the triangle below, fill in the blanks.



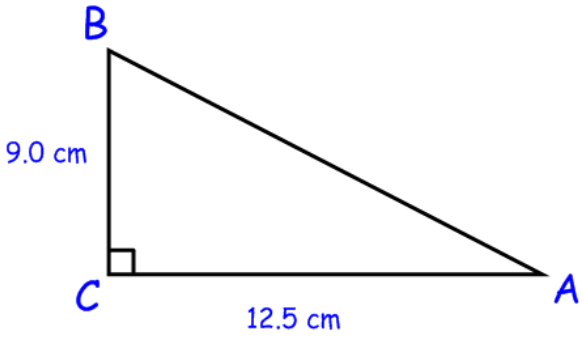
If we use T as the reference angle:	**If we use Y as the reference angle:**
The opposite side is: ____	The opposite side is: ____
The adjacent side is: ____	The adjacent side is: ____
The hypotenuse is: ____	The hypotenuse is: ____

$\sin(T) = \frac{4}{5}$ | $\cos(T) = \frac{3}{\_\_}$ | $\tan(T) = \frac{\_\_}{4}$ | $\sin(Y) = \frac{\_\_}{\_\_}$ | $\cos(Y) = \frac{\_\_}{\_\_}$ | $\tan(Y) = \frac{\_\_}{\_\_}$

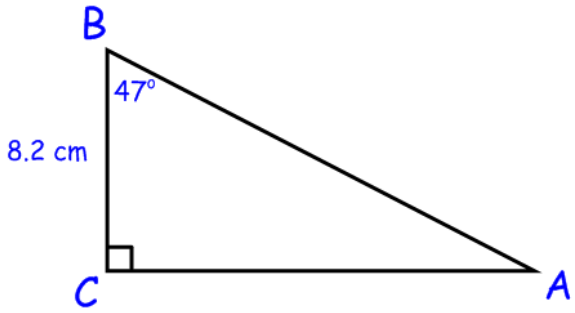
Set-up to solve for the indicated sides and angles.



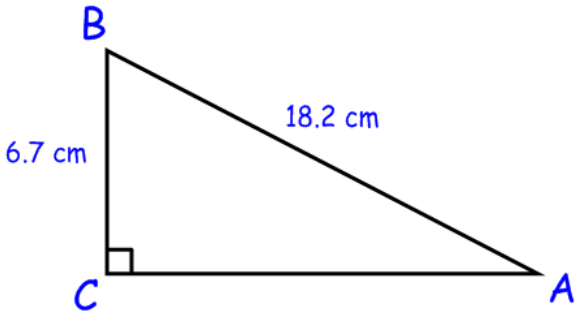
Solve for side a | Solve for side b



Solve for angle A | Solve for angle B



Solve for side B | Solve for side C



Solve for angle A | Solve for angle B