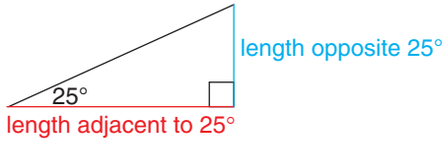
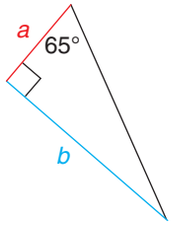
Check Up

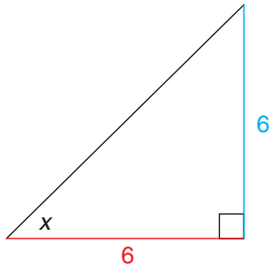
1. The ratios for angles 35° and 50° have been left blank. Draw a right triangle with an acute angle of 35°, and measure the opposite and adjacent side lengths. Use these lengths to calculate the ratio for 35°. Repeat this process for 50°. Complete the previous table.

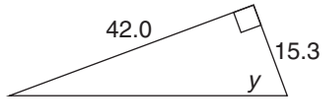
2. Use the previous table to state a ratio of sides for each of the following triangles. Explain what each ratio represents.

a. 

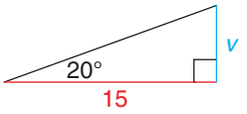
b. 

3. Use the previous table to determine the values of the variables.

a. 

b. 

4. Use the previous table to determine the unknown variable, to the nearest tenth, in the triangle shown.

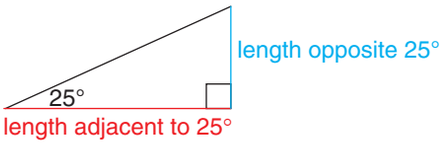


☑ Compare your answers.

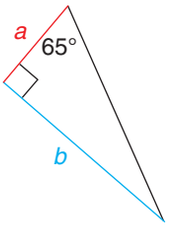
1. The ratios for angles 35° and 50° have been left blank. Draw a right triangle with an acute angle of 35°, and measure the opposite and adjacent side lengths. Use these lengths to calculate the ratio for 35°. Repeat this process for 50°.

   The ratio for 35° is approximately 0.70 and the ratio for 50° is approximately 1.19.

2. Use the previous table to state a ratio of sides for each of the following triangles. Explain what each ratio represents.

a. 

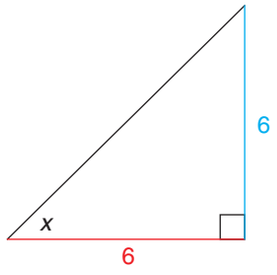
   The value produced when the length of the side opposite 25° is divided by the length of the side adjacent to 25° is 0.47.

b. 

   The value produced when the length of side *b* is divided by the length of side *a* is 2.14.

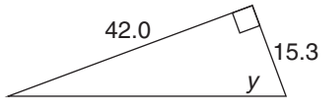
3. Use the previous table to determine the values of the variables.

a.



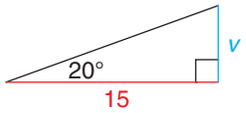
$\frac{6}{6} = 1$, so $x = 45°$

b.



$\frac{42.0}{15.3} = 2.75$, so $y = 70°$

4. Use the previous table to determine the unknown variable, to the nearest tenth, in the triangle shown.



Look for the ratio that corresponds to 20° in the table.

$$\frac{\text{length opposite } 20°}{\text{length adjacent to } 20°} = 0.36$$

$$\frac{v}{15} = 0.36$$

$$\frac{v}{15} \cdot 15 = 0.36 \cdot 15$$

$$v = 5.4$$