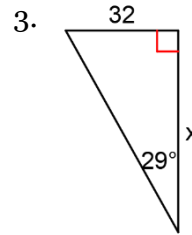
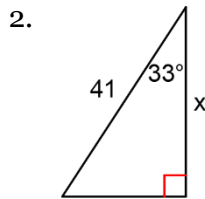
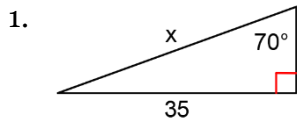
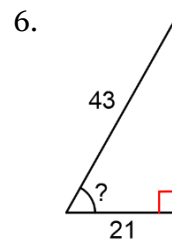
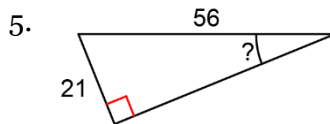
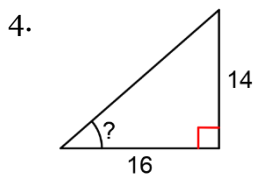


# 7.6 ~ SOLVING RIGHT TRIANGLES

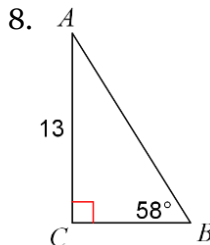
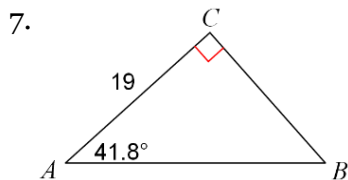
Set up and solve a trigonometric equation to find the value of  $x$ . Approximate the solution to two decimal places.



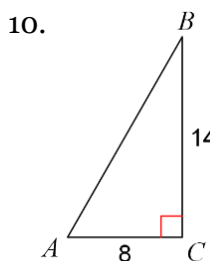
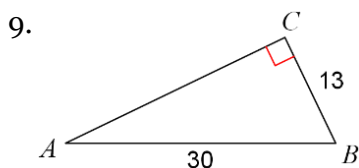
Write a trigonometric ratio and use inverse trigonometric functions to find the measure of the indicated angle. Approximate the solution to the nearest tenth of a degree.



Solve each right triangle. Show the trigonometric equation used to find missing side lengths and angle measures. Round side lengths to the nearest hundredth. Round angle measures to the nearest tenth.



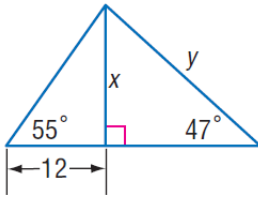
$AB = \underline{\hspace{2cm}}$      $BC = \underline{\hspace{2cm}}$      $m\angle B = \underline{\hspace{2cm}}$      $AB = \underline{\hspace{2cm}}$      $BC = \underline{\hspace{2cm}}$      $m\angle A = \underline{\hspace{2cm}}$



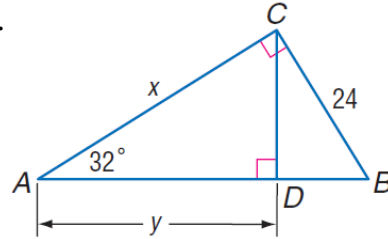
$AC = \underline{\hspace{2cm}}$      $m\angle A = \underline{\hspace{2cm}}$      $m\angle B = \underline{\hspace{2cm}}$      $AB = \underline{\hspace{2cm}}$      $m\angle A = \underline{\hspace{2cm}}$      $m\angle B = \underline{\hspace{2cm}}$

Set up and solve a trigonometric equation to find the values of  $x$  and  $y$ . Approximate the solutions to two decimal places.

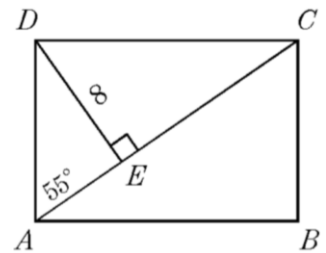
11.



12.



13. Find the area of rectangle  $ABCD$ . Round your solution to the nearest hundredth.



14. The diagram shows a flagpole that stands on level ground. Two cables,  $r$  and  $s$ , are attached to the pole at a point 16 feet above the ground. The combined length  $r + s$  of the two cables is 50 feet. If cable  $r$  is attached to the ground 12 feet from the base of the pole, what is the measure of the angle,  $x$ ? Round your solution to the nearest tenth.

