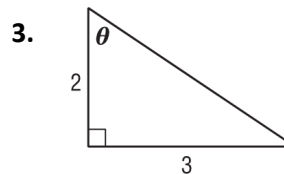
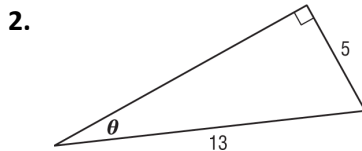
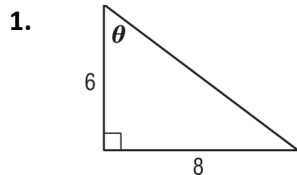


Find the values of the six trigonometric functions for angle θ .

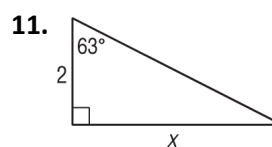
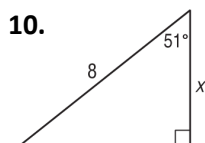
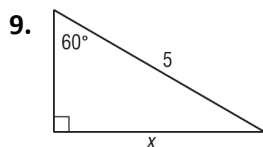
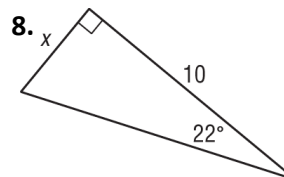
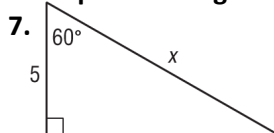
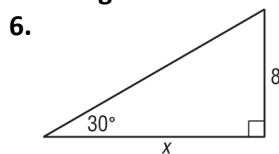


In a right triangle, $\angle A$ is acute.

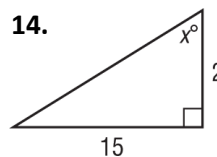
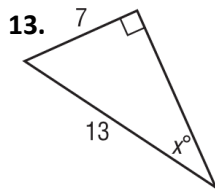
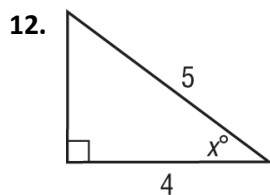
4. If $\tan A = 3$, what is $\sin A$?

5. If $\sin A = \frac{1}{16}$, what is $\cot A$?

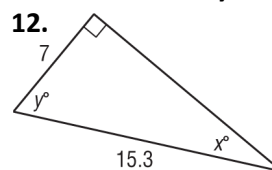
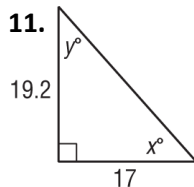
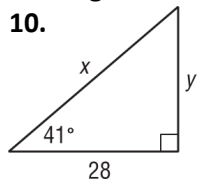
Use a trig function to find the value of x . Use special triangles when possible. Round to the nearest tenth if necessary.



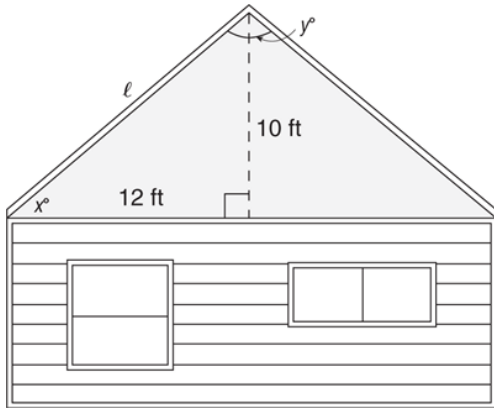
Find the value of x . Round to the nearest tenth if necessary.



Use trigonometric functions to find the values of x and y . Round to the nearest tenth if necessary.



ROOFS The roof on a house is built with a pitch of 10/12, meaning that the roof rises 10 feet for every 12 feet of horizontal run. The side view of the roof is shown in the figure below.



- a. What is the angle x at the base of the roof?
- b. What is the angle y at the peak of the roof?
- c. What is the length ℓ of the roof?
- d. If the width of the roof is 26 feet, what is the total area of the roof?

2. BUILDINGS Jessica stands 150 feet from the base of a tall building. She measures the angle from her eye to the top of the building to be 84° . If her eye level is 5 feet above the ground, how tall is the building to the nearest foot?

3. SCALE DRAWING The collection pool for a fountain is in the shape of a right triangle. A scale drawing shows that the angles of the triangle are 40° , 50° , and 90° . If the hypotenuse of the actual fountain will be 30 feet, what are the lengths of the other two sides of the fountain to the nearest tenth of a foot?

4. GEOMETRY A regular hexagon is inscribed in a circle with a diameter of 8 inches.

- a. What is the perimeter of the hexagon?

- b. What is the area of the hexagon?

