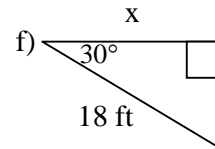
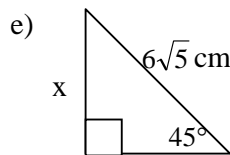
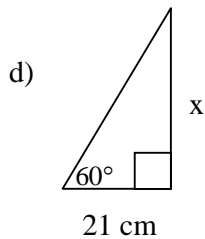
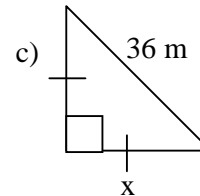
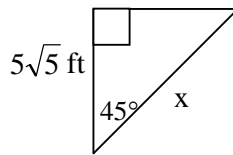
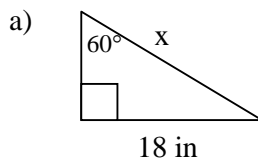


1. A lifeguard sitting in a 24-foot tower looks down to the water and spots a swimmer in trouble. If the angle of depression is 12° , how far is the swimmer from the bottom of the lifeguard tower?
Sketch and solve to the nearest foot.

2. From 130 feet away from a giant Redwood tree, the angle of elevation from the ground to the top of the tree is 43° . How tall is the tree? Sketch and solve to the nearest foot.

3. Solve for the x . Leave answer is simplified radical form. (No calculator)

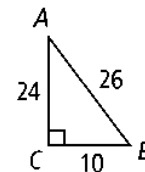


Use the figure at the right for Exercises 4-6. Write each ratio.

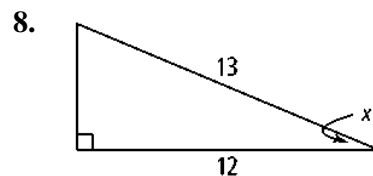
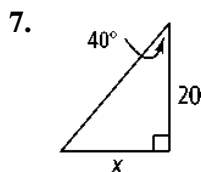
4. $\sin B$

5. $\cos B$

6. $\tan A$

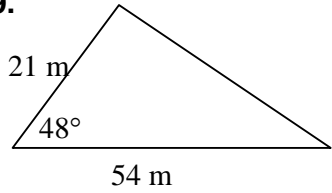


Find the value of x . Round lengths to the nearest tenth and angle measures to the nearest degree.

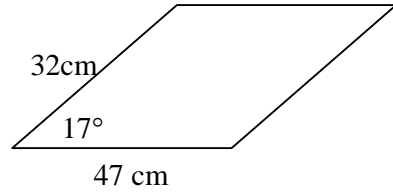


In 9-10, find the area to the nearest tenth.

9.



10.

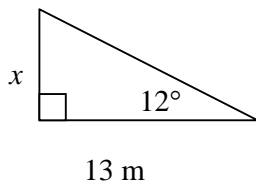


11. Find the area of an equilateral triangle with a height 42 inches. Answer should be in **simplified radical form**.

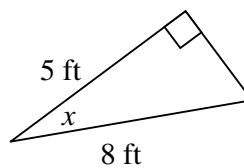
12. Find the perimeter of a square with diagonal 24 in. Answer should be in **simplified radical form**.

In 13-15, write the equation to find x . **DO NOT SOLVE**.

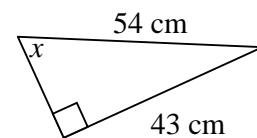
13.



14.



15.



16. Find the perimeter if the height is 4 cm. Leave answer in **simplified radical form**.

