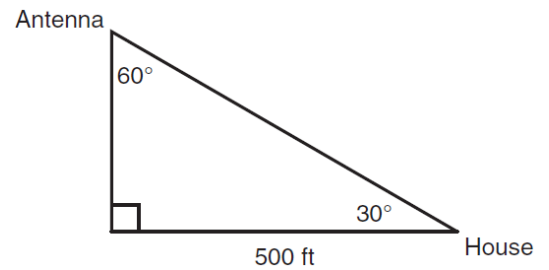
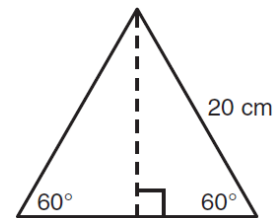


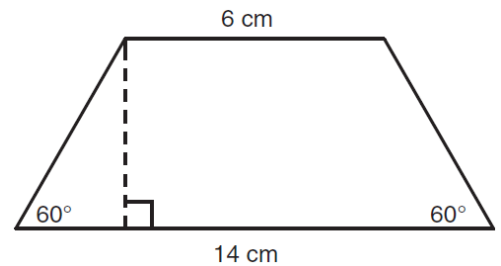
13. A broadcast antenna is situated on top of a tower. The signal travels from the antenna to your house so you can watch TV. The angle of elevation from your house to the tower measures 30 degrees, and the distance from your house to the tower is 500 feet. Calculate the height of the tower and the distance the signal travels. Round your answers to the nearest hundredth.



14. Given The equilateral triangle as shown
 Find: (a) the height of the triangle
 (b) the area of the triangle



15. Given: The isosceles trapezoid as shown
 Find: (a) the slant height of the trapezoid
 (b) the height of the trapezoid
 (c) the perimeter of the trapezoid
 (d) the area of the trapezoid



- E.C. A cable stayed bridge has one or more towers erected above piers in the middle of the span. From these towers, cables stretch down diagonally (usually to both sides). One cable forms a 60° angle with the bridge deck and is connected to the tower 35 feet above the bridge deck. A second cable forms a 45° angle with the bridge deck and is connected to the tower 12 feet above the point at which the first cable connects to the tower. Calculate the length of both cables and the length of the bridge span from each cable to the tower. **(Show all work for credit.)**

