13. The perimeter of the square is 32 centimeters. Calculate the exact length of the diagonal.

14. The length of a diagonal of the square is 36 centimeters. Calculate the exact length of each side.

15. The length of a diagonal of the square is 12 centimeters.
a. Calculate the exact length of each side.
b. What is its area?

16. Calculate the area of the figure shown using the information given and following the steps below. The figure is composed of a triangle and a semicircle. Use 3.14 for $\pi$.
a. Find the area of the triangle.
b. What is the exact diameter of the circle?

c. What is the exact radius of the circle?
d. Find the area of the semicircle.
e. What is the total area?
17. The length of the diagonal of the square in the figure shown is 60 inches. The figure is composed of a square and a semicircle.
a. Calculate the exact length of one side of the square.
b. What is the exact length of three sides?
c. What is the exact radius of the circle?

d. Find the exact circumference of the semicircle.
e. What is the perimeter of the figure? Round your answer to the nearest hundredth.
