Area and Perimeter Problems

1. Find the circumference of the circle. Express it in terms of \( \pi \) (exact). Then round to the nearest tenth (approximate).

2. (a) Find the perimeter of a rectangle that has a width of 4 yards and a length of 9 yards. (b) Find the circumference of a circle that has a diameter of 12 centimeters.

3. (a) Find the area of the following figures using the formula given for its area. (b) Confirm the area by approximating the number of squares inside the figure. (Match up partial squares to approximate whole squares.)

4. The width of a rectangular garden is 25 feet. The area of the garden is 1250 square feet. Find the length of the garden.
5. Find the area of the figure below.

![Figure with dimensions 21 cm, 12 cm, 8 cm, 14 cm]

6. The circumference of a circle is $14\pi$ inches. Find the circle’s diameter, radius, and area.

7. How many plants spaced every 6 inches are needed to surround a circular garden with a 30-foot radius?

8. Find the perimeter of the figure below in which a rectangle and a semicircle are joined.
   (Round to the nearest tenth.)

![Figure with dimensions 12 ft, 8 ft]
9. Hardwood flooring costs $10 per square foot. How much will it cost (to the nearest dollar) to cover the dance floor shown in the figure with hardwood flooring?

![Dance Floor Diagram]

10. The perimeter of a yield sign in the shape of an isosceles triangle is 22 feet. If the shortest side is 2 feet less than the other two sides, find the length of the shortest side.

![Yield Sign Diagram]

Rectangular Solids

![Rectangular Solid Diagram]
Volume Problems

1. A water storage tank is in the shape of a cone with the pointed end down. If the radius is 14 feet and the depth of the tank is 15 feet, approximate the volume of the tank (round to the nearest tenth).

2. A cylindrical fish tank has a diameter of 6 feet and a height of 3 feet. How many tropical fish can be put in the tank if each fish needs 5 cubic feet of water?

3. Andrea has dug a rectangular foundation 2 meters by 3 meters for a new shed in her backyard. She has removed 9 cubic meters of dirt. How deep is the hole?