Name _____ Date _____

Circumference and Area of Circles in Words

Directions: Answer each question. Use 3.14 for π whenever a question asks you to. Type number answers with digits, and use a decimal point when needed.

1. A bike wheel has a diameter of 26 inches. Use 3.14 for π. What is the circumference of the wheel, the distance around it, in inches?

_____ inches

2. A circular rug has a radius of 3 feet. Use 3.14 for π. What is the area of the rug, in square feet?

_____ square feet

3. A window is shaped like half of a circle with a radius of 2 feet. Use 3.14 for π. What is the distance around the window, including its straight bottom edge, in feet?

_____ feet

4. A pizza has a diameter of 14 inches. Use 3.14 for π. What is the area of the top of the pizza, in square inches?

_____ square inches

5. A round garden has a diameter of 10 meters. Use 3.14 for π. What is the area of the garden?

A. 78.5 square meters
B. 314 square meters
C. 15.7 square meters
D. 31.4 square meters

6. The distance around a circular pond is 94.2 meters. Use 3.14 for π. What is the radius of the pond, in meters?

_____ meters

7. A circle with radius r is cut into many equal wedges, like slices of a pie. The wedges are fit together, pointing up and down in turn, into a shape that is very close to a rectangle. The rectangle's height is the radius, r, and its length is half of the circle's circumference. Which expression gives the area of the rectangle, and so the area of the circle?

A. $2\pi r \times r = 2\pi r^2$
B. $2\pi r + 2r$
C. $\pi r + r$
D. $\pi r \times r = \pi r^2$

8. Elena found the area of a circle with a diameter of 12 centimeters, using 3.14 for π. Her work is shown.

1. $r = 12 \div 2 = 6$
2. Area $= 3.14 \times 6 \times 2$
3. Area $= 37.68$ square centimeters

Which step has the first mistake?

A. Area $= 3.14 \times 6 \times 2$
B. $r = 12 \div 2 = 6$
C. Area $= 37.68$ square centimeters
D. There is no mistake.