

Circumference & Area

Name: _____

#6

Formulas:

Circumference of a Circle: $C = \pi d$ or $C = 2\pi r$

Area of a Circle: $A = \pi r^2$

Follow the directions for each question. Use the π button on your calculator. Round your answers to the nearest tenth.

1. What is the area of a circle with a radius of 11 km?
2. What is the area of a circle with a diameter of 8 m?
3. What is the circumference of a circle with a diameter of 22 cm?
4. What is the circumference of a circle with a radius of 7 in?
5. What is the radius of a circle with a circumference of 75.4 mi?
6. What is the diameter of a circle with an area of 78.5 yd^2 ?
7. What is the diameter of a circle with a circumference of 18.8 m?
8. What is the radius of a circle with an area of 113.1 cm^2 ?

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Follow the directions for each question. Use the π button on your calculator. Round your answers to the nearest tenth.

1. What is the area of a circle with a radius of 11 km?

$$A = \pi \cdot (11)^2$$
$$A = 380.1 \text{ km}^2$$

2. What is the area of a circle with a diameter of 8 m?

$$A = \pi \cdot 4^2$$
$$A = 50.3 \text{ m}^2$$

3. What is the circumference of a circle with a diameter of 22 cm?

$$C = \pi \cdot 22$$
$$C = 69.1 \text{ cm}$$

4. What is the circumference of a circle with a radius of 7 in?

$$C = 2 \cdot \pi \cdot 7$$
$$C = 44.0 \text{ in}$$

5. What is the radius of a circle with a circumference of 75.4 mi?

$$C = 2\pi r$$
$$\frac{75.4}{2\pi} = \frac{2 \cdot \pi \cdot r}{2\pi}$$
$$r = 12.0 \text{ mi}$$

6. What is the diameter of a circle with an area of 78.5 yd²?

$$A = \pi r^2$$
$$\frac{78.5}{\pi} = \frac{\pi r^2}{\pi}$$
$$24.99 = r^2$$
$$5.0 = r$$
$$d = 10 \text{ yd}$$

7. What is the diameter of a circle with a circumference of 18.8 m?

$$C = \pi d$$
$$\frac{18.8}{\pi} = \frac{\pi d}{\pi}$$
$$d = 6.0 \text{ m}$$

8. What is the radius of a circle with an area of 113.1 cm²?

$$A = \pi r^2$$
$$\frac{113.1}{\pi} = \frac{\pi r^2}{\pi}$$
$$36.0 = r^2$$
$$r = 6$$