

1. A circle's circumference is 12π meters.
 a. Find the diameter.

$$C = \pi d$$

$$\frac{12\pi}{\pi} = \frac{\pi d}{\pi}$$

$$12m = d$$

- b. Find the radius.

$$6m = r$$

2. A circle's area is 81π meters².
 a. Find the circle's radius.

$$A = \pi r^2$$

$$\frac{81\pi}{\pi} = \frac{\pi r^2}{\pi}$$

$$\sqrt{81} = \sqrt{r^2}$$

$$9m = r$$

- b. Find the circle's diameter.

$$18m = d$$

3. The area of a circle is 84 square feet. To the nearest tenth, what is the radius of the circle?

$$A = \pi r^2$$

$$\frac{84}{\pi} = \frac{\pi r^2}{\pi}$$

$$\sqrt{26.7} = \sqrt{r^2}$$

$$5.2 = r$$

$$ft$$

4. The circumference of a circle is 12.5cm. To the nearest whole, what is the diameter of the circle?

$$C = \pi d$$

$$\frac{12.5}{\pi} = \frac{\pi d}{\pi}$$

$$4cm = d$$

5. The circumference of a circle is 25π inches. What is the area of the circle (express in terms of pi)?

$$C = \pi d$$

$$\frac{25\pi}{\pi} = \frac{\pi d}{\pi}$$

$$25 = d$$

$$12.5 = r$$

$$A = \pi r^2$$

$$A = \pi (12.5)^2$$

$$A = 156.25\pi \text{ in}^2$$

6. The circumference of a circle is 122 cm. Find the area of the circle. Round to the whole.

$$C = \pi d$$

$$\frac{122}{\pi} = \frac{\pi d}{\pi}$$

$$39 = d$$

$$\rightarrow 19.5 = r$$

$$A = \pi r^2$$

$$A = \pi (19.5)^2$$

$$A = 1195$$

$$cm^2$$