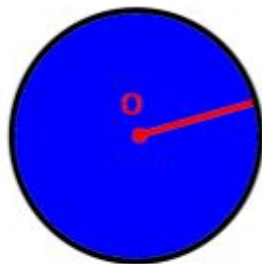# Area of a Circle

The area is blue.

The circumference is black.

Point O is the center of the circle.

The radius is red.

Area of a Circle

$A = (\Pi)(r^2)$

Remember use BEDMAS!

Example #1

Find the area of the circle:
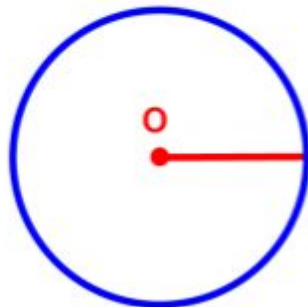

$A = (\pi)\,(r)^2$

$\approx (3.14)\,(4\ cm)^2$

$\approx (3.14)\,(16\ cm^2)$ Note that we get cm^2

$\approx 50.24\ cm^2$

Example 2: A little bit of Algebra

What is the radius of the circle below if it has an area of 615.44cm²?

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

$$615.44cm^2 = (3.14)(r)^2$$

$$\frac{615.44cm^2}{3.14} = (r)^2$$

$$196cm^2 = (r)^2$$

$$\sqrt{196cm^2} = \sqrt{(r)^2}$$

Note that we take the square root of both sides.

$$14cm = r$$