

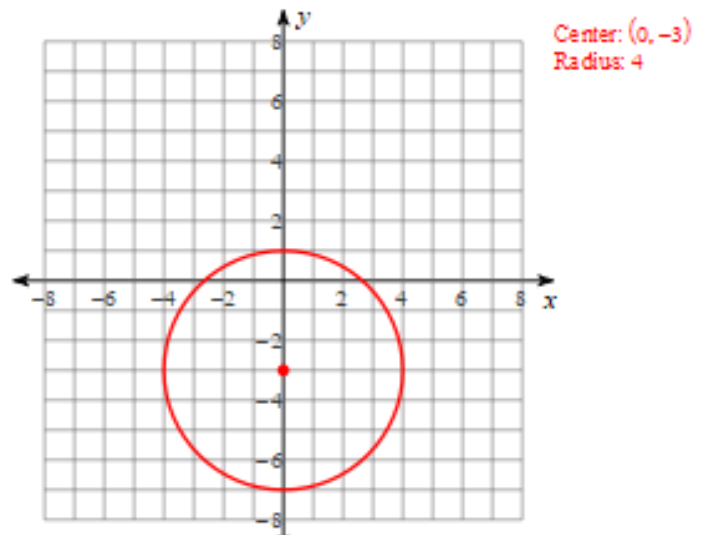
Use the information provided to write the equation of each circle.

- 1) Center: $(8, -6)$
 Radius: 5

$$(x - 8)^2 + (y + 6)^2 = 25$$

$$(x - h)^2 + (y - k)^2 = r^2$$

2) $x^2 + (y + 3)^2 = 16$



Use the information provided to write the equation of each circle.

- 3) Center: $(-2, -7)$
 Point on Circle: $(6, -4)$
 $(x + 2)^2 + (y + 7)^2 = 73$

$$(6 + 2)^2 + (-4 + 7)^2 = r^2$$

$$64 + 9 = r^2$$

$$73 = r^2$$

- 4) Ends of a diameter: $(10, 16)$ and $(14, 4)$
 $(x - 12)^2 + (y - 10)^2 = 40$
 39.69

$$d = \sqrt{(14 - 10)^2 + (4 - 16)^2}$$

$$\sqrt{16 + 144}$$

$$\sqrt{160} = 12.6$$

$$12.6 / 2 = 6.3$$

$$x = \frac{10 + 14}{2} \quad y = \frac{16 + 4}{2}$$

$$h = 12 \quad k = 10$$

PI

ys

The **ratio** of the **circumference** of a circle to its **diameter**.

The value of pi is usually shown as **3.14**

Theorem 12-16 Equation of a circle

gs

An equation of a circle with center (h,k) and ^{radius} r is r

$$(x - \underline{h})^2 + (y - \underline{k})^2 = \underline{r}^2$$

Quiz Time

Work on worksheet and pink sheet when finished with quiz

