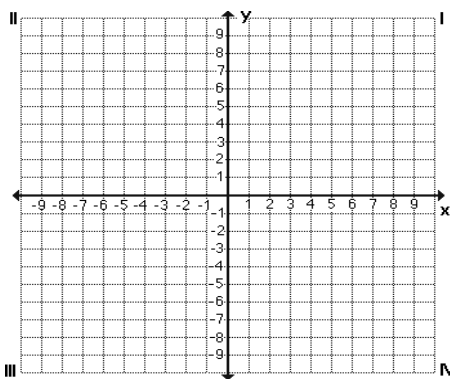


**Determine the center, the value of the radius,. Graph the center and the four points to create a sketch of the circle.**

1.  $x^2 + y^2 = 25$

Center (     ,     )

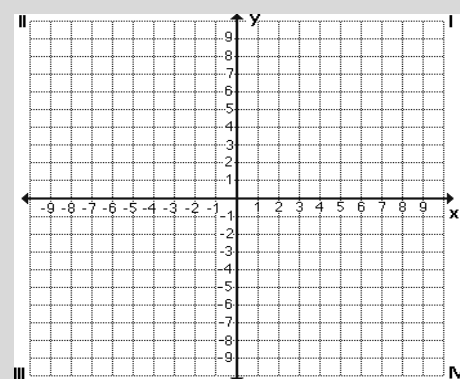
$r =$  \_\_\_\_\_



2.  $15x^2 + 15y^2 = 60$

Center (     ,     )

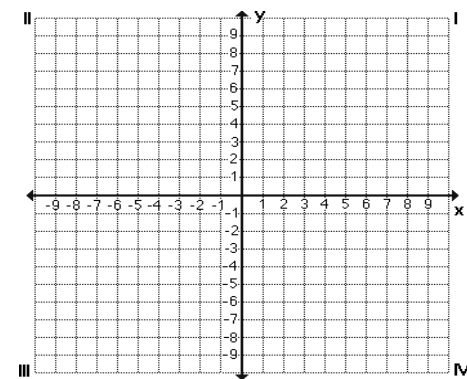
$r =$  \_\_\_\_\_



3.  $8x^2 + 8y^2 = 192$

Center (     ,     )

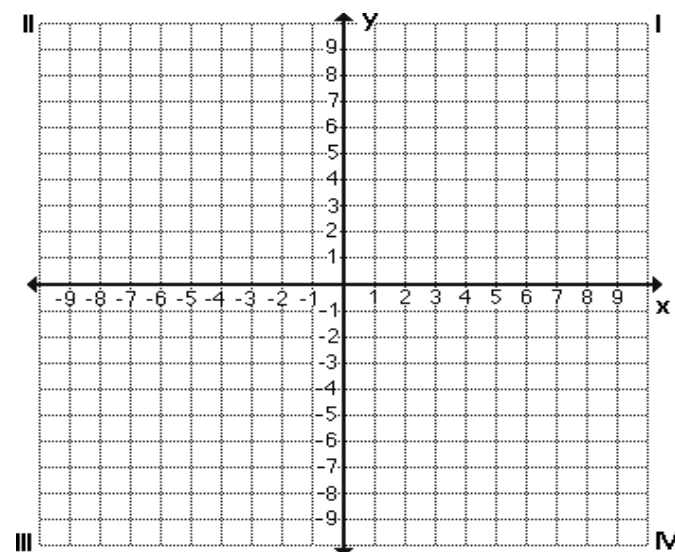
$r =$  \_\_\_\_\_



4.  $(x+5)^2 + (y-3)^2 = 49$

Center (     ,     )

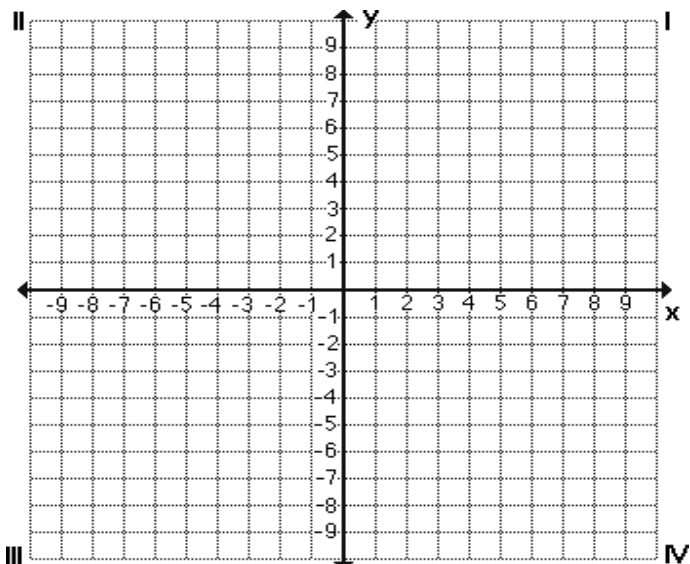
$r =$  \_\_\_\_\_



5.  $x^2 + (y-1)^2 = 50$

Center (      ,      )

$r =$  \_\_\_\_\_



**Write the standard form of the equation of the circle with the given radius and given center.**

6.  $r = 16$  , Center  $(-1, -9)$

Equation: \_\_\_\_\_

7.  $r = 5\sqrt{2}$  , Center  $(-2, 5)$

Equation: \_\_\_\_\_

8.  $r = 4\sqrt{6}$  , Center  $(0, -3)$

Equation: \_\_\_\_\_

**Write the standard form of the equation of the circle that passes through the given point and whose center is the origin.**

9.  $(4, -10)$

Equation: \_\_\_\_\_

10.  $(-8, -5)$

Equation: \_\_\_\_\_

11.  $(-6, 8)$

Equation: \_\_\_\_\_

12.  $(9, 40)$

Equation: \_\_\_\_\_

**13. A 2011 Dodge Challenger comes with the option of 22 inch chrome wheels. Find the equation of the wheel if the center of the wheel is defined at the origin.**