

**Section 10 - 3A: The Circle**

**Name** \_\_\_\_\_

Find the distance between the two given points.  $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

1. ( 7, 13 ) and ( 16 , 1 )

2. ( -7, 13 ) and ( -1, 5 )

3. ( -2 , 1 ) and ( -8 , 3 )

4. ( -5 , 3 ) and ( 0 , -7 )

5. ( -8 -2) and ( -8 , -8 )

6.  $\left(\frac{1}{5}, \frac{1}{3}\right)$  and  $\left(\frac{6}{5}, \frac{2}{3}\right)$

State the center and radius given the equation for a circle in standard form.

7.  $(x - 8)^2 + (y + 1)^2 = 36$

8.  $(x + 2)^2 + y^2 = 16$

**center point** \_\_\_\_\_

**center point** \_\_\_\_\_

**radius** \_\_\_\_\_

**radius** \_\_\_\_\_

9.  $(x + 2)^2 + (y - 5)^2 = 121$

10.  $x^2 + (y - 3)^2 = \frac{4}{9}$

**center point** \_\_\_\_\_

**center point** \_\_\_\_\_

**radius** \_\_\_\_\_

**radius** \_\_\_\_\_

Write the equation for the circle given the center and radius.

11. center is at  $(-3, 5)$  and  $r = 5$

12. center is at  $(2, -7)$  and  $r = \frac{3}{4}$

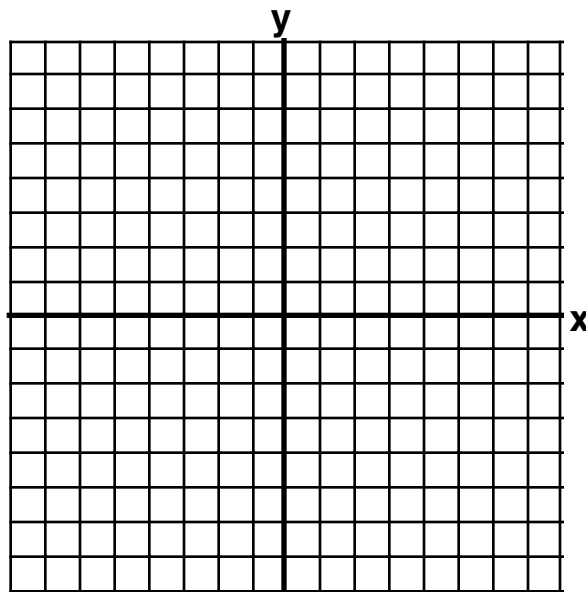
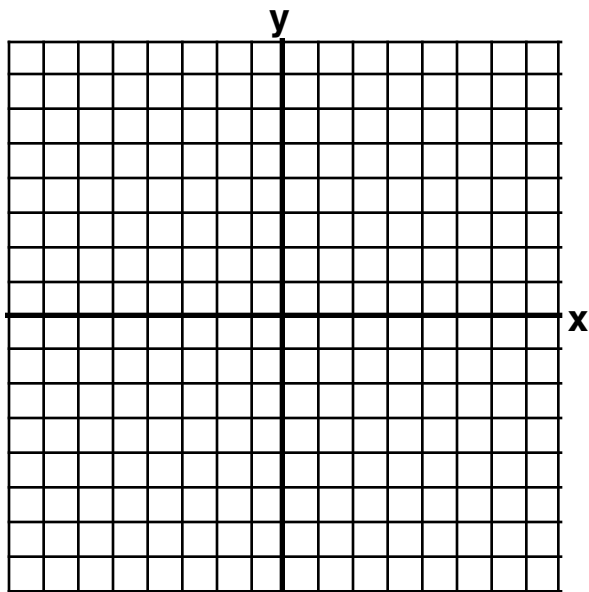
13. center is at  $(2, 0)$  and  $r = \sqrt{7}$

14. center is at  $(0, -4)$  and  $r = 4\sqrt{3}$

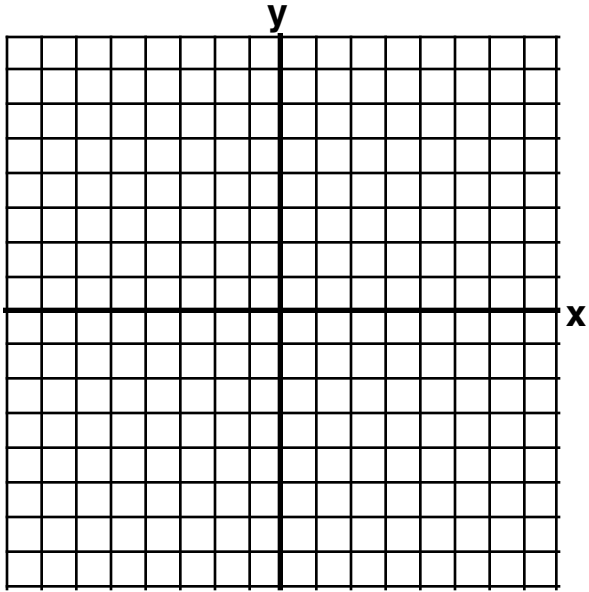
Graph each relation.

15.  $x^2 + y^2 = 36$

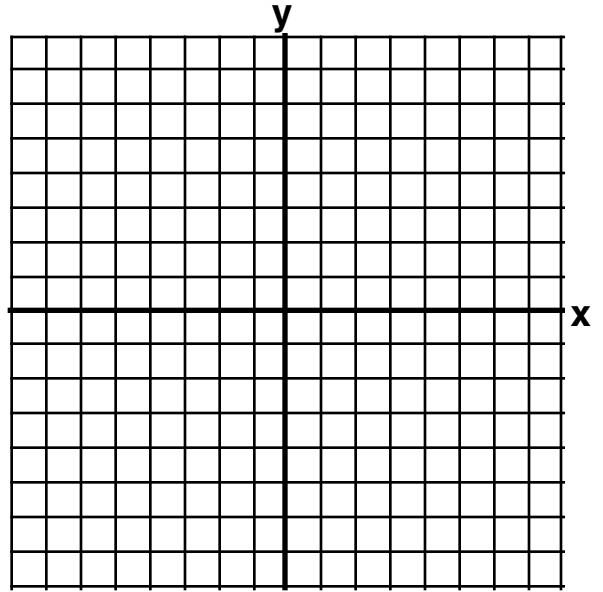
16.  $(x+1)^2 + y^2 = 9$



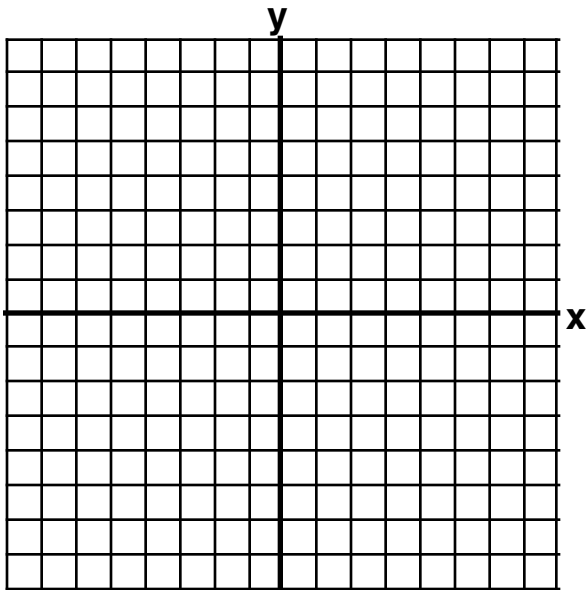
17.  $x^2 + (y+4)^2 = 4$



18.  $(x-1)^2 + (y+3)^2 = 25$



19.  $(x-4)^2 + (y-4)^2 = 9$



20.  $(x+3)^2 + (y-2)^2 = 16$

