

Write the equation of a circle for each center and radius or diameter given.

11.  $(1, 1)$   $r = 2$

12.  $(-3, 2)$   $d = 2$

13.  $(0, 2)$   $r = 4$

14.  $(-3, 3)$   $d = 20$

15.  $(-6, -1)$   $d = 10$

16.  $(-7, 0)$   $r = 6$

Find the coordinates of the center and the measure of the radius for each circle with the given equation.

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

18.  $x^2 + y^2 = 64$

19.  $x^2 + (y + 9)^2 = 81$

20.  $(x + 3)^2 + y^2 = 25$