

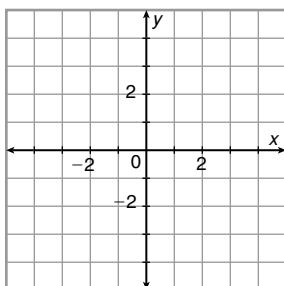
**LESSON** **Practice B**  
**11-7** **Circles in the Coordinate Plane**

Write the equation of each circle.

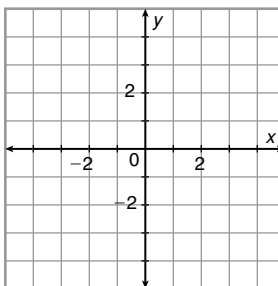
1.  $\odot X$  centered at the origin with radius 10 \_\_\_\_\_
2.  $\odot R$  with center  $R(-1, 8)$  and radius 5 \_\_\_\_\_
3.  $\odot P$  with center  $P(-5, -5)$  and radius  $2\sqrt{5}$  \_\_\_\_\_
4.  $\odot O$  centered at the origin that passes through  $(9, -2)$  \_\_\_\_\_
5.  $\odot B$  with center  $B(0, -2)$  that passes through  $(-6, 0)$  \_\_\_\_\_
6.  $\odot F$  with center  $F(11, 4)$  that passes through  $(-2, 5)$ . \_\_\_\_\_

Graph each equation.

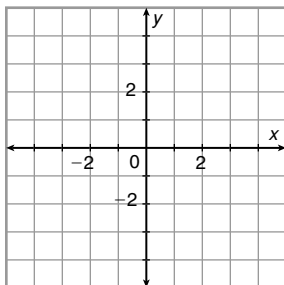
7.  $x^2 + y^2 = 25$



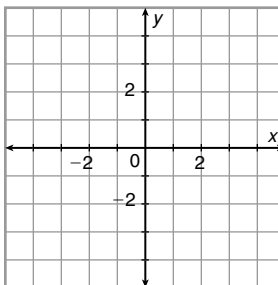
8.  $(x + 2)^2 + (y - 1)^2 = 4$



9.  $x^2 + (y + 3)^2 = 1$

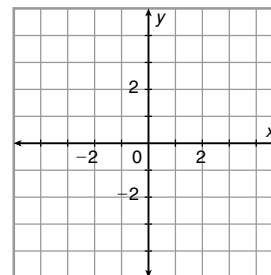


10.  $(x - 1)^2 + (y - 1)^2 = 16$



Crater Lake in Oregon is a roughly circular lake. The lake basin formed about 7000 years ago when the top of a volcano exploded in an immense explosion. Hillman Peak, Garfield Peak, and Cloudcap are three mountain peaks on the rim of the lake. The peaks are located in a coordinate plane at  $H(-4, 1)$ ,  $G(-2, -3)$ , and  $C(5, -2)$ .

11. Find the coordinates of the center of the lake.



12. Each unit of the coordinate plane represents  $\frac{3}{5}$  mile. Find the diameter of the lake.