Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Circles whose center is not on (0,0)

For questions 1-4, match the equation with the graph.



1. $\left(x-8\right)^{2}+\left(y+2\right)^{2}=4$
2. $x^{2}+\left(y-6\right)^{2}=9$
3. $\left(x+2\right)^{2}+\left(y-3\right)^{2}=36$
4. $\left(x-4\right)^{2}+\left(y+4\right)^{2}=25$

Graph the following circles. Find the center and radius.

1. $\left(x-2\right)^{2}+\left(y-5\right)^{2}=16 $
2. $\left(x+7\right)^{2}+\left(y-1\right)^{2}=8$

Find the equation of the circle, given the information below.

7. center: (−3,−3) radius: 7

1. center: (−7,6) radius: $\sqrt{15}$

**Extra Credit: Graph each circle. (Hint: Find the radius for #9, and the center and radius for #10)**

1. center: (−2,−5) point on circle: (3,2)
2. diameter endpoints: (−4,1) and (6,3)