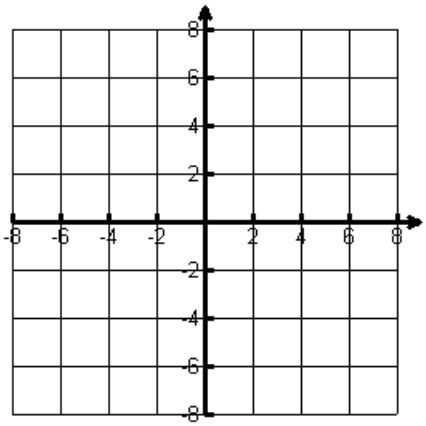
Name_____ Date_____ Period_____

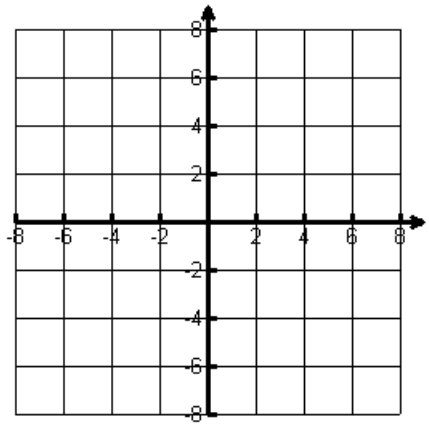
10.7 Circles in the Coordinate Plane

Find the center, radius, and graph.

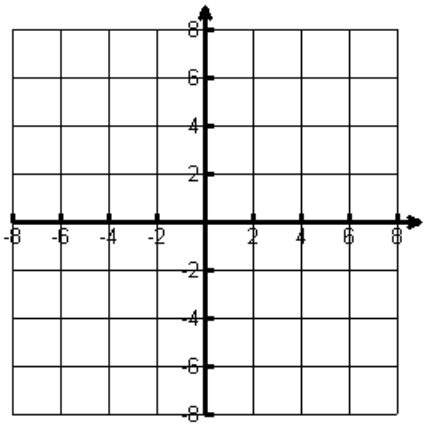
1. $x^2 + y^2 = 25$



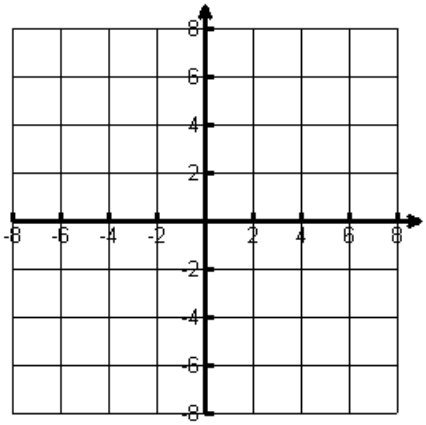
2. $x^2 + y^2 = 36$



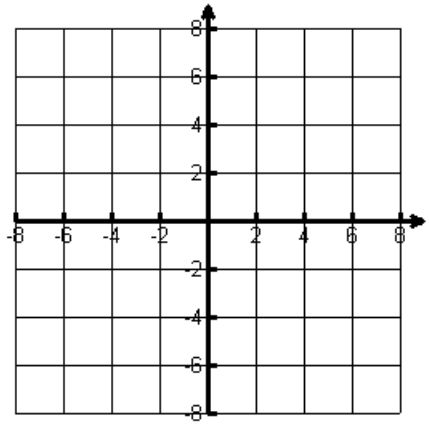
3. $x^2 + y^2 = 49$



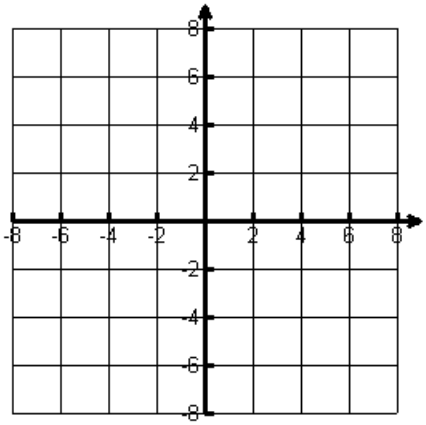
4. $(x - 3)^2 + (y + 1)^2 = 4$



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



6. $x^2 + (y + 4)^2 = 16$



Write the equation of the circle with the given information.

7. center at (0, 0), radius 9

8. center at (-1, -3), radius 1.5

9. center at (6, 1), radius 7.4

10. center at (-4, 3), radius 5

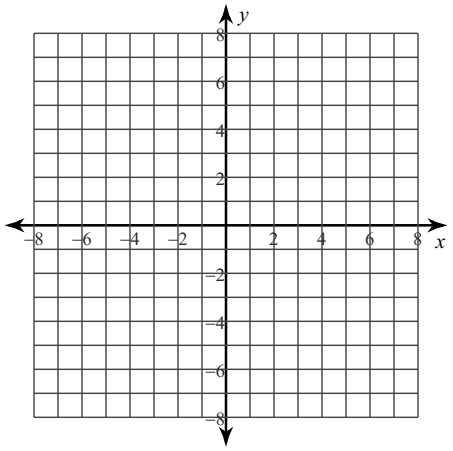
Geometry Name_____ ID: 1

HW 18: Equations of Circles

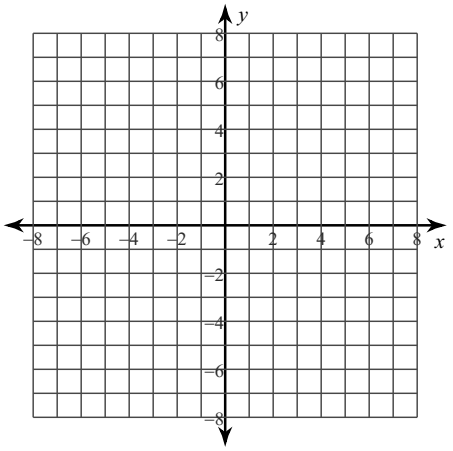
Date_____ Period____

Identify the center and radius of each. Then sketch the graph.

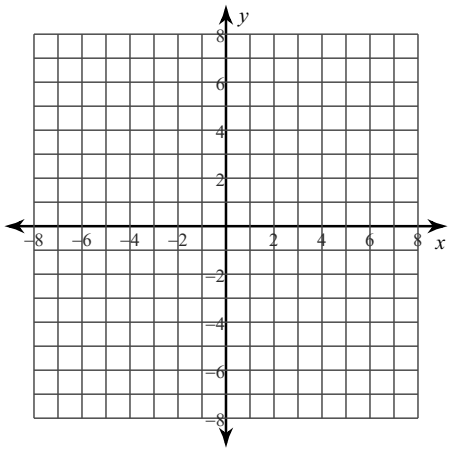
1) $x^2 + y^2 = 16$



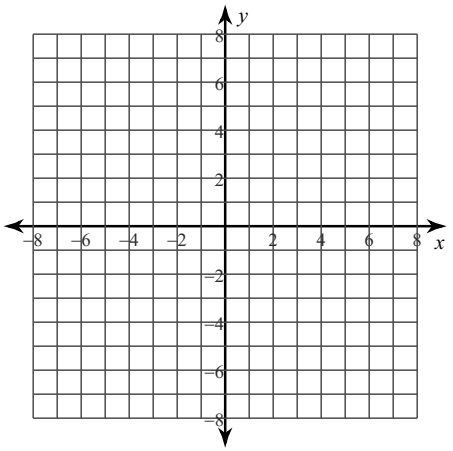
2) $x^2 + y^2 = 36$



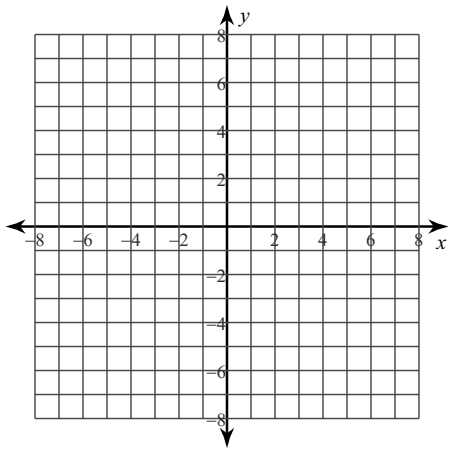
3) $x^2 + y^2 = 49$



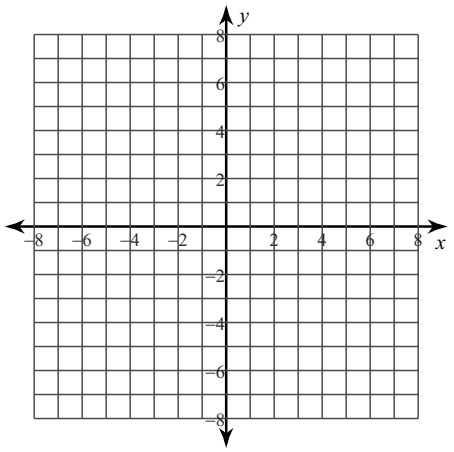
4) $x^2 + y^2 = 23$



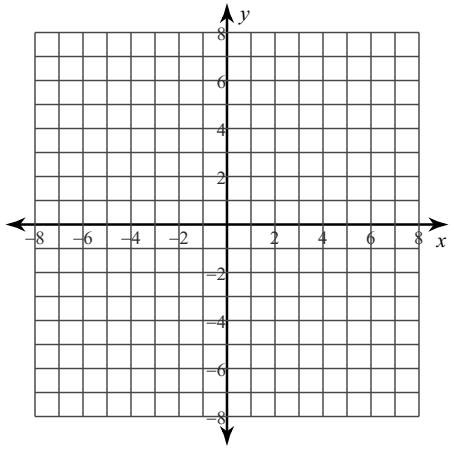
5) $x^2 + y^2 = 9$



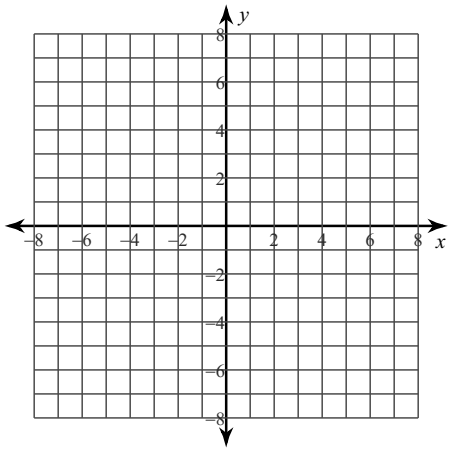
6) $(x+3)^2 + (y-2)^2 = 9$



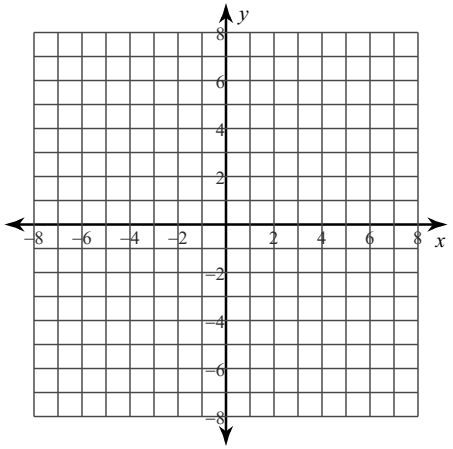
7) $(x-2)^2 + (y-1)^2 = 1$



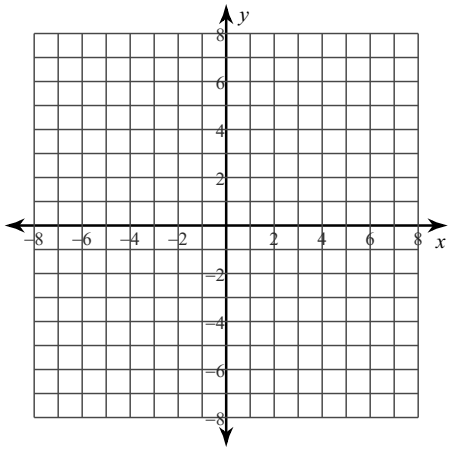
8) $\left(x+\frac{5}{2}\right)^2 + (y-3)^2 = 9$



9) $(x-2)^2+(y+3)^2=4$



10) $(x-1)^2+(y-3)^2=8$



Use the information provided to write the equation of each circle.

11) Center: $(0, 0)$
Radius: $\sqrt{30}$

12) Center: $(0, 0)$
Radius: $\sqrt{185}$

13) Center: $(0, 0)$
Radius: 7

14) Center: $(0, 0)$
Radius: 15

15) Center: $(0, 0)$
Radius: 9

16) Center: $(8, 14)$
Radius: 4

17) Center: $\left(-\frac{17}{2}, -\frac{13}{2}\right)$
Radius: 5

18) Center: $(-13, -7)$
Radius: $\sqrt{11}$

19) Center: $(10, -10)$
Radius: 6

20) Center: $(10, 16)$
Radius: 3