 Name_____

Graphing and Properties of Circles

Date_____ Period____

Identify the center and radius of each.

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

2) $x^2 + y^2 = 324$

3) $(x + 2)^2 + (y - 3)^2 = 183$

4) $(x + 7)^2 + (y + 8)^2 = 64$

5) $(x + 10)^2 + (y + 9)^2 = 36$

6) $(x + 5)^2 + (y - 10)^2 = 9$

7) $x^2 + (y + 2)^2 = 121$

8) $(x - 14)^2 + (y - 2)^2 = 4$

9) $364 + 28y + y^2 + x^2 = -26x$

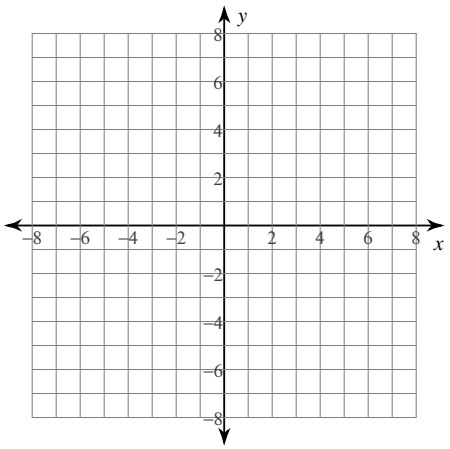
10) $x^2 + y^2 + 24x + 10y + 160 = 0$

11) $-6x = -x^2 + 32y - 264 - y^2$

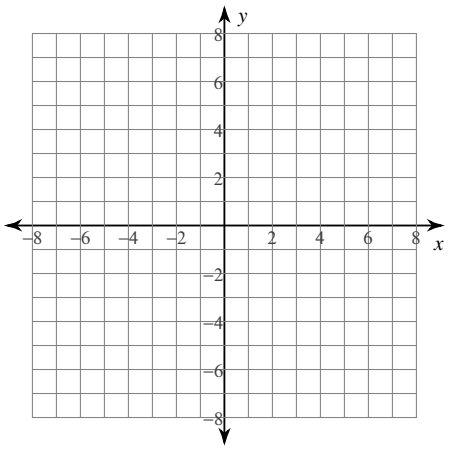
12) $-6x + x^2 = 97 + 10y - y^2$

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

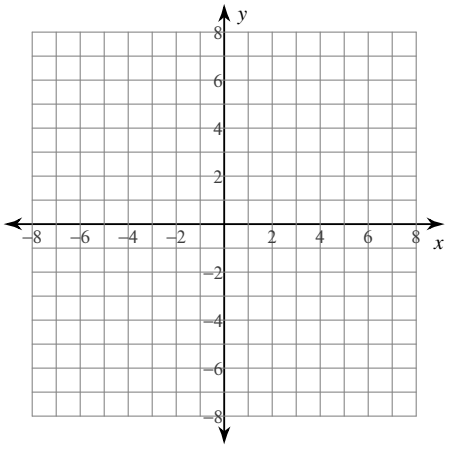
13) $(x + 1)^2 + (y - 2)^2 = 9$



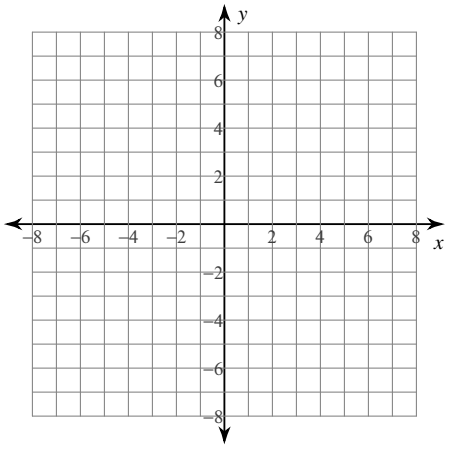
14) $(x + 2)^2 + (y + 3)^2 = 4$



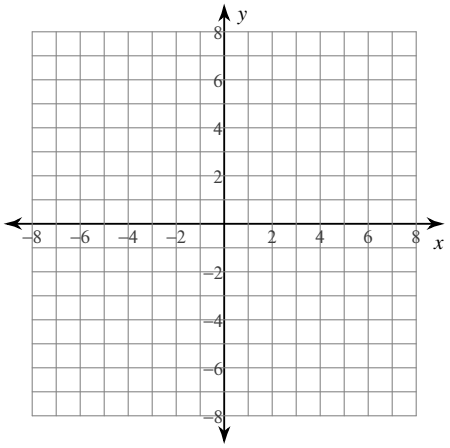
15) $(x+1)^2+(y+2)^2=25$



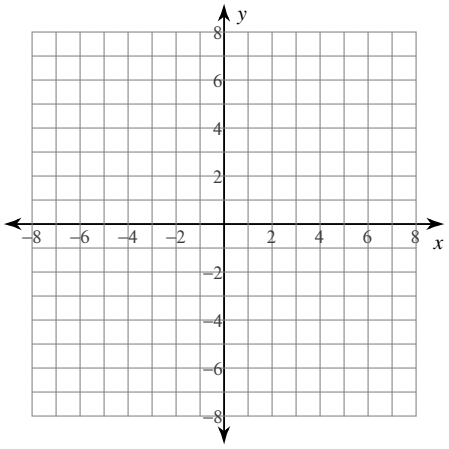
16) $(x+3)^2+(y-3)^2=8$



17) $(x+3)^2+(y+2)^2=9$



18) $\left(x+\frac{5}{2}\right)^2+\left(y-\sqrt{14}\right)^2=9$



Kuta Software - Infinite Algebra 2 Name_____

Graphing and Properties of Circles

Date_____ Period____

Identify the center and radius of each.

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

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

2) $x^2 + y^2 = 324$

Center: $(0, 0)$
Radius: 18

3) $(x + 2)^2 + (y - 3)^2 = 183$

Center: $(-2, 3)$
Radius: $\sqrt{183}$

4) $(x + 7)^2 + (y + 8)^2 = 64$

Center: $(-7, -8)$
Radius: 8

5) $(x + 10)^2 + (y + 9)^2 = 36$

Center: $(-10, -9)$
Radius: 6

6) $(x + 5)^2 + (y - 10)^2 = 9$

Center: $(-5, 10)$
Radius: 3

7) $x^2 + (y + 2)^2 = 121$

Center: $(0, -2)$
Radius: 11

8) $(x - 14)^2 + (y - 2)^2 = 4$

Center: $(14, 2)$
Radius: 2

9) $364 + 28y + y^2 + x^2 = -26x$

Center: $(-13, -14)$
Radius: 1

10) $x^2 + y^2 + 24x + 10y + 160 = 0$

Center: $(-12, -5)$
Radius: 3

11) $-6x = -x^2 + 32y - 264 - y^2$

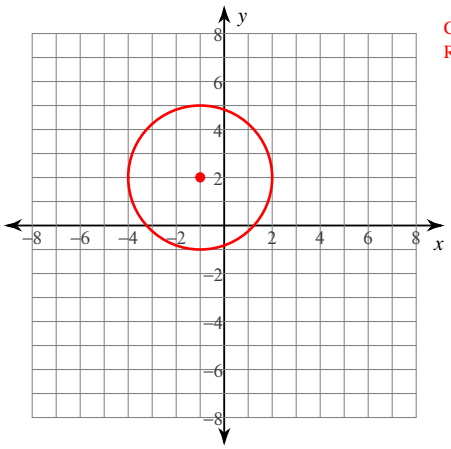
Center: $(3, 16)$
Radius: 1

12) $-6x + x^2 = 97 + 10y - y^2$

Center: $(3, 5)$
Radius: $\sqrt{131}$

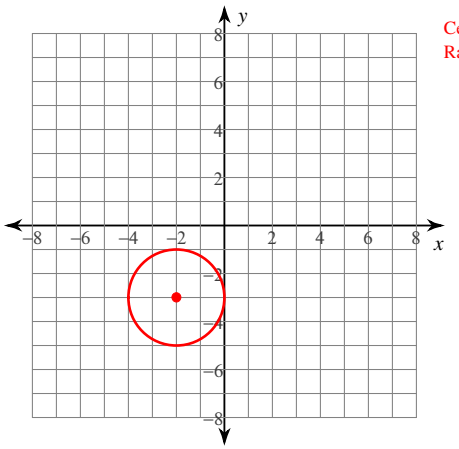
Identify the center and radius of each. Then sketch the graph.

13) $(x + 1)^2 + (y - 2)^2 = 9$



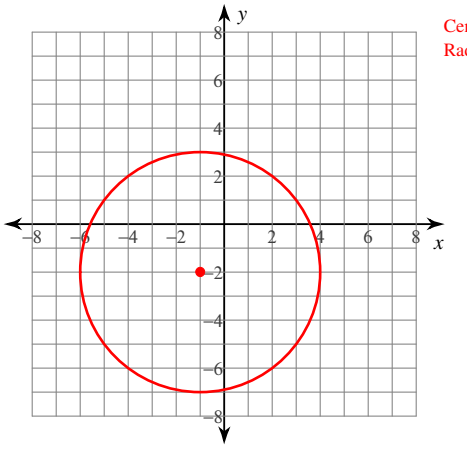
Center: $(-1, 2)$
Radius: 3

14) $(x + 2)^2 + (y + 3)^2 = 4$



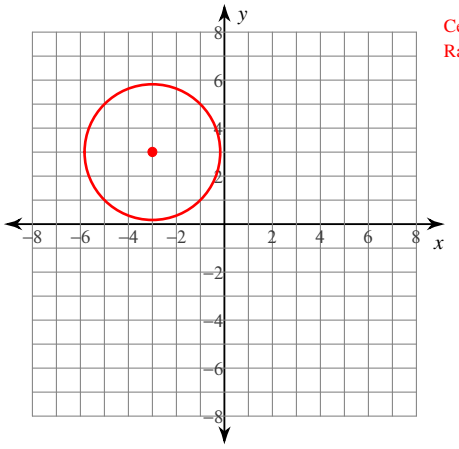
Center: $(-2, -3)$
Radius: 2

15) $(x+1)^2+(y+2)^2=25$



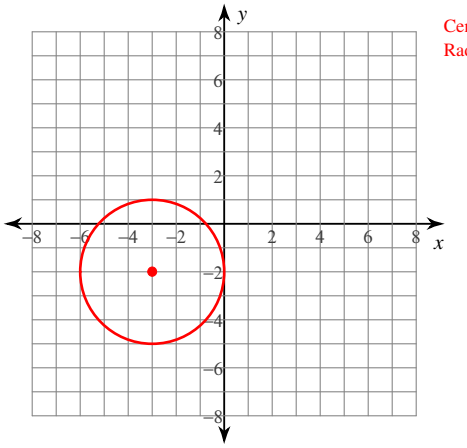
Center: (–1, –2)
Radius: 5

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



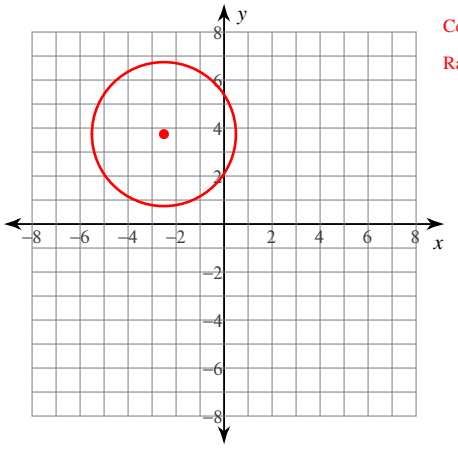
Center: (–3, 3)
Radius: $2\sqrt{2}$

17) $(x+3)^2+(y+2)^2=9$



Center: (–3, –2)
Radius: 3

18) $\left(x+\frac{5}{2}\right)^2+\left(y-\sqrt{14}\right)^2=9$



Center: $\left(-\frac{5}{2}, \sqrt{14}\right)$
Radius: 3