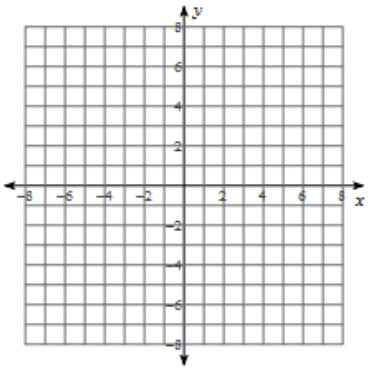
Advanced Math Name_____

Equations of Circles Optional Extra Practice

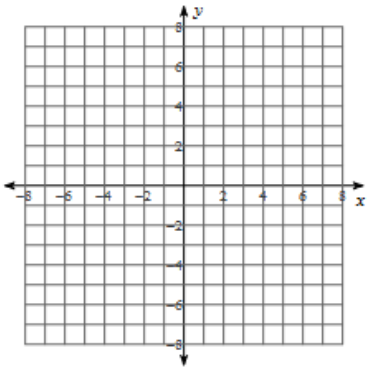
Date_____ Period____

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

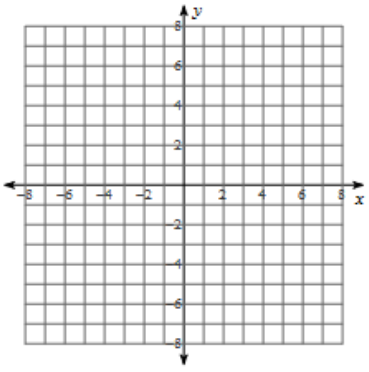
1) $(x-2)^2+(y+1)^2=1$



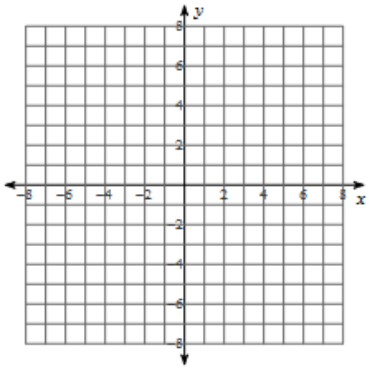
2) $(x-2)^2+(y+2)^2=16$



3) $x^2+y^2+8y+7=0$



4) $x^2+y^2+6x-4y+12=0$



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

5) Center: $(1, 14)$
Radius: 2

6) Center: $(10, 10)$
Radius: $\sqrt{73}$

7) Center: $(2, 15)$
Circumference: 6π

8) Center: $(-11, 7)$
Circumference: 10π

9) Center: $(-3, 15)$
Area: 7π

10) Center: $(14, -10)$
Area: 9π

11) Center: $(-1, 1)$
Point on Circle: $(-8, -14)$

12) Center: $(-12, -13)$
Point on Circle: $(-6, -13)$

13) Ends of a diameter: $(7, -6)$ and $(13, 12)$

14) Ends of a diameter: $(-11, -1)$ and $(17, 1)$

15) Center: $(-11, -12)$
Tangent to $x = -9$

16) Center: $(6, 15)$
Tangent to $y = 19$