College Algebra Math 1030 Name_____ ID: 1

U2D12 - Circles

Date_____ Period____

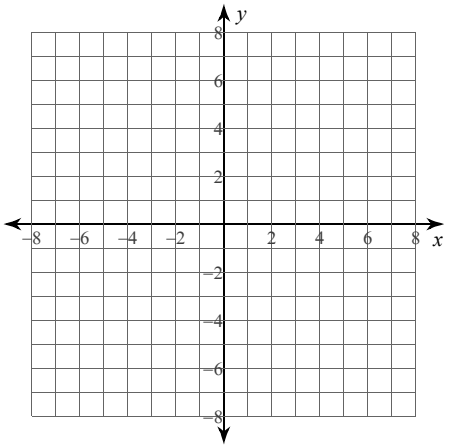
Identify the center and radius of each.

1) $x^2 + (y - 9)^2 = 36$

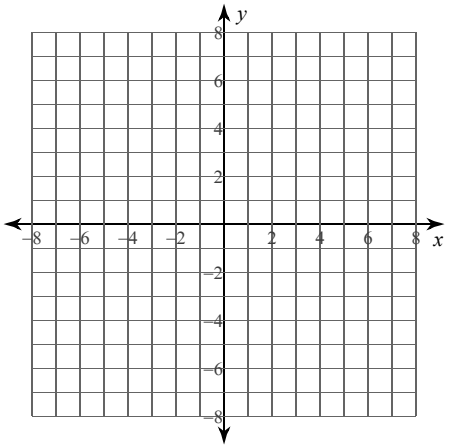
2) $(x + 3)^2 + (y - 8)^2 = 4$

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

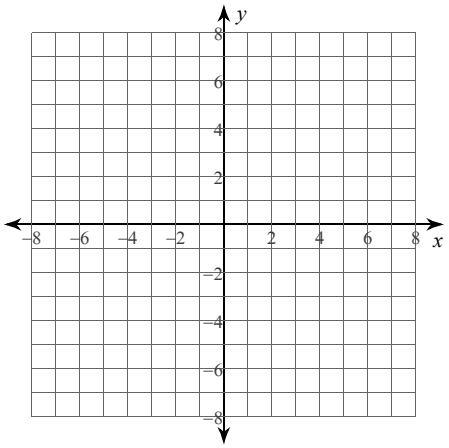
3) $(x - 2)^2 + (y - 4)^2 = 9$



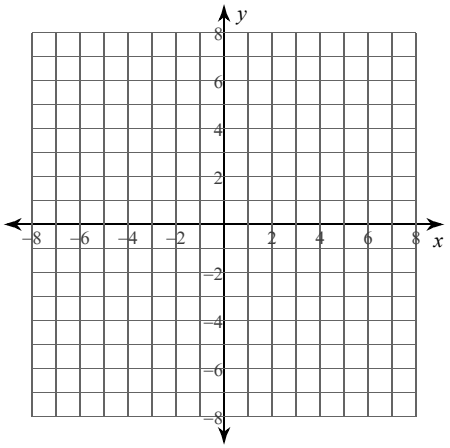
4) $(x - 2)^2 + (y - 2)^2 = 5$



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



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



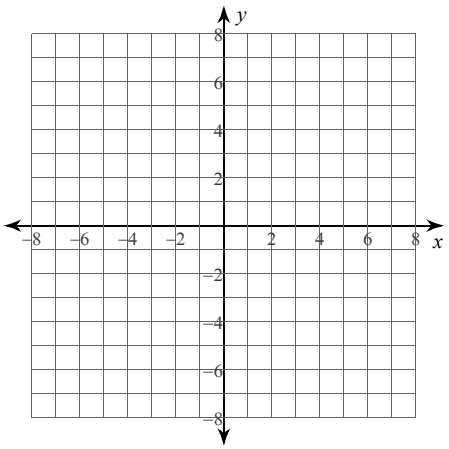
Use the information provided to write the standard form equation of each circle.

7) $x^2 + y^2 - 22x - 12y + 156 = 0$

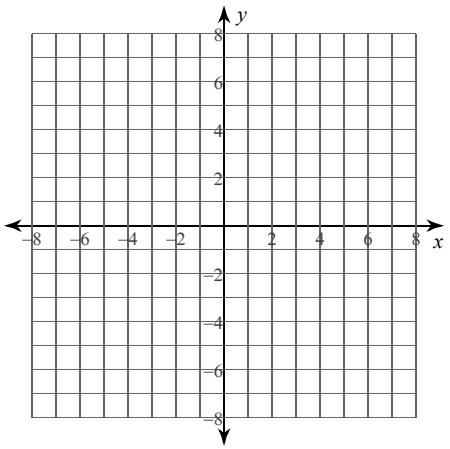
8) $x^2 + y^2 + 4x - 16y + 19 = 0$

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

9) $x^2 + y^2 + 4x + 2y - 20 = 0$



10) $x^2 + y^2 - 8x - 2y + 13 = 0$



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

11) Center: $(-5, 7)$
Radius: 7

12) Center: $(12, -13)$
Point on Circle: $(9, -11)$

13) Center: $(0, 10)$
Point on Circle: $(-2, 6)$

14) Ends of a diameter: $(0, -13)$ and $(2, 19)$

15) $(x - 6)^2 + (y + 3)^2 = 81$
Translated 5 right, 3 down

16) $(x + 16)^2 + (y + 5)^2 = 4$
Translated 1 right, 2 down

17) Center: $(2, 2\sqrt{22})$
Area: 4π

18) Center: $(-16, 12)$
Circumference: 4π

19) Center: $(-3, -1)$
Tangent to $x = 5$

20) Center: $(4, -15)$
Tangent to $x = 5$