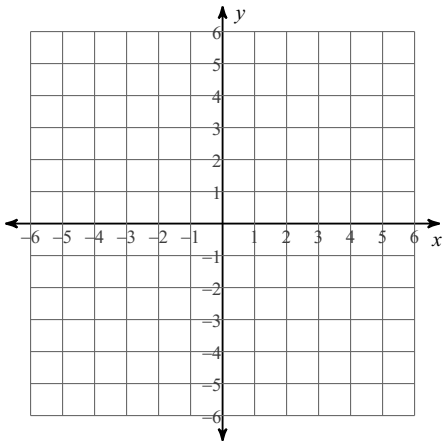
Activity 0921

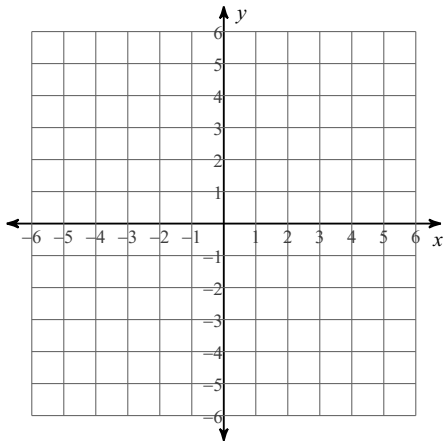
Date_____ Period____

Sketch the graph of each line.

1) $y = -\frac{2}{3}x - 2$

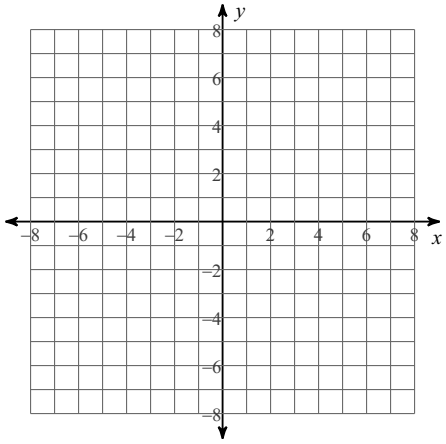


2) $y = \frac{1}{4}x + 3$

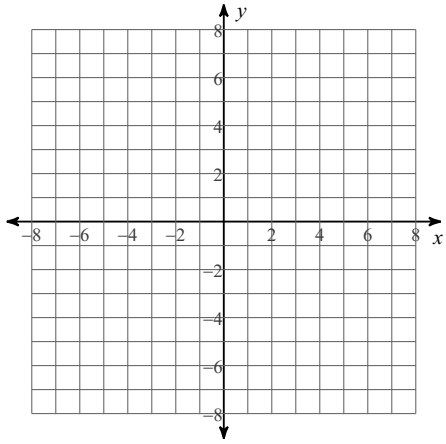


Identify the center and radius of each. Then sketch the graph.

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

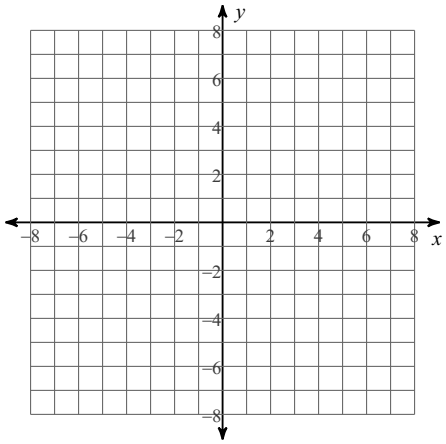


4) $(x-3)^2 + (y-2)^2 = 4$

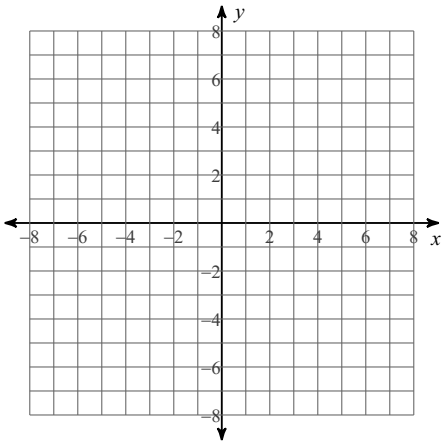


Identify the vertex, focus, and axis of symmetry of each. Then sketch the graph.

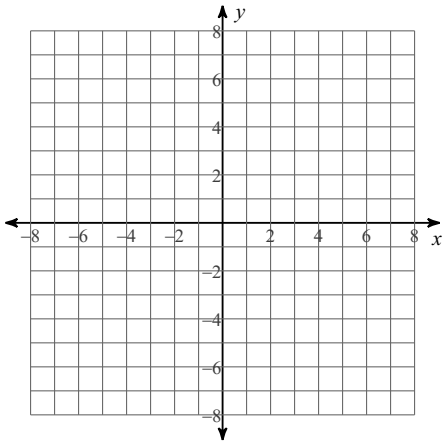
5) $y = 2x^2$



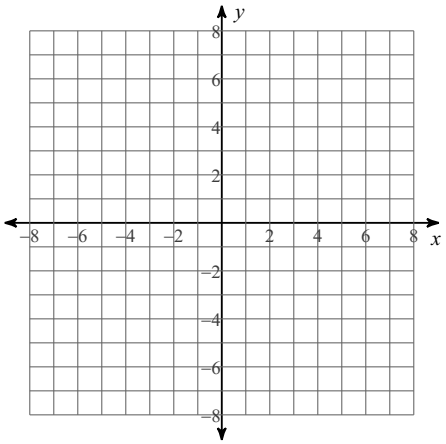
6) $y = -\frac{1}{2}x^2$



7) $y = (x + 1)^2 + 4$



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



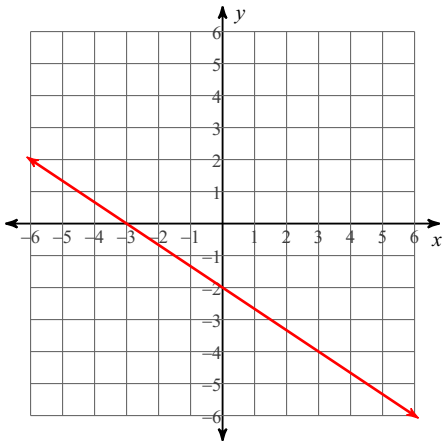
Algebra 2 Name_____ ID: 1

Activity 0921

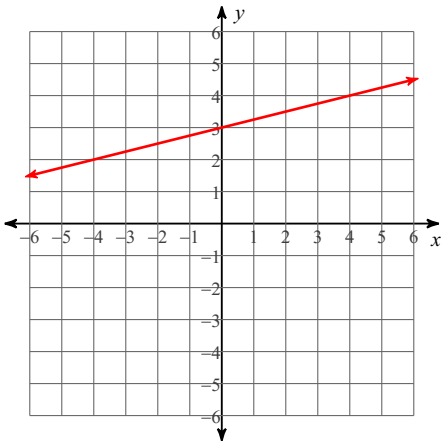
Date_____ Period____

Sketch the graph of each line.

1) $y = -\frac{2}{3}x - 2$

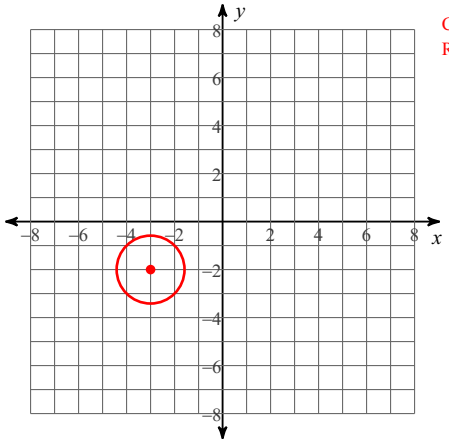


2) $y = \frac{1}{4}x + 3$



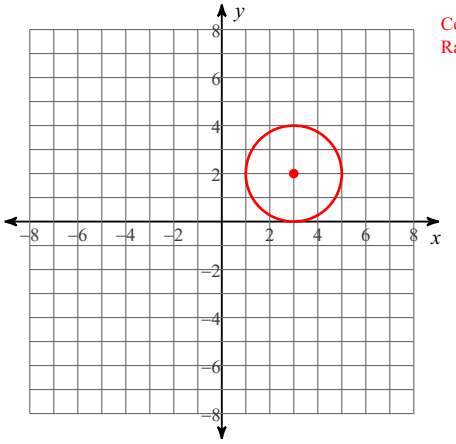
Identify the center and radius of each. Then sketch the graph.

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



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

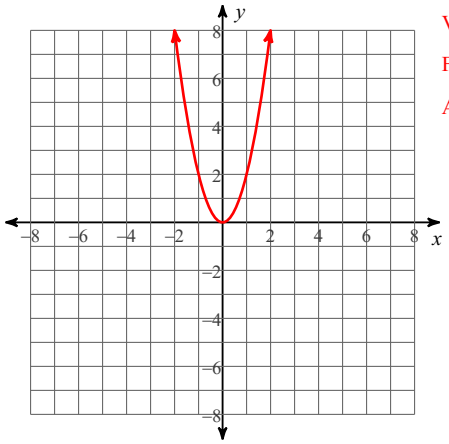
4) $(x-3)^2 + (y-2)^2 = 4$



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

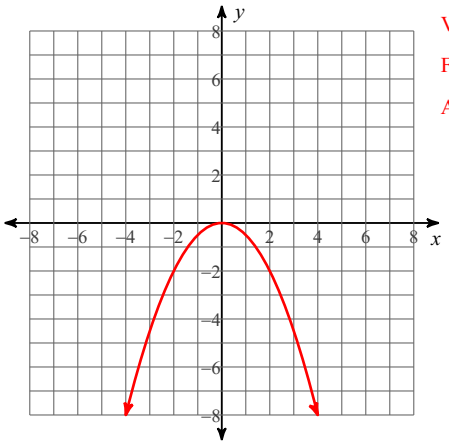
Identify the vertex, focus, and axis of symmetry of each. Then sketch the graph.

5) $y = 2x^2$



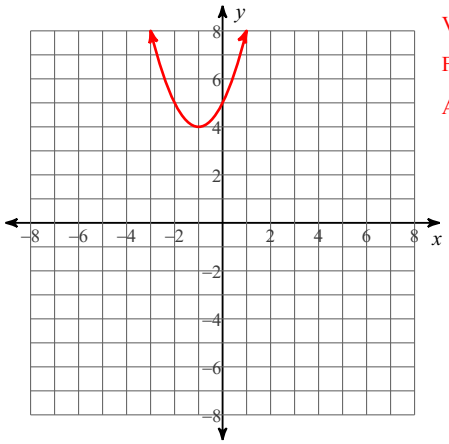
Vertex: $(0, 0)$
Focus: $\left(0, \frac{1}{8}\right)$
Axis of Sym.: $x = 0$

6) $y = -\frac{1}{2}x^2$



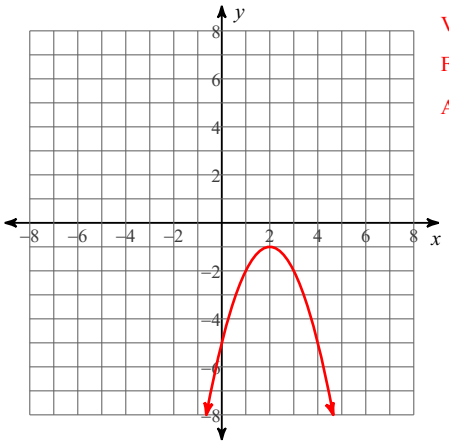
Vertex: $(0, 0)$
Focus: $\left(0, -\frac{1}{2}\right)$
Axis of Sym.: $x = 0$

7) $y = (x + 1)^2 + 4$



Vertex: $(-1, 4)$
Focus: $\left(-1, \frac{17}{4}\right)$
Axis of Sym.: $x = -1$

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



Vertex: $(2, -1)$
Focus: $\left(2, -\frac{5}{4}\right)$
Axis of Sym.: $x = 2$