

# Parabola/Circle Review

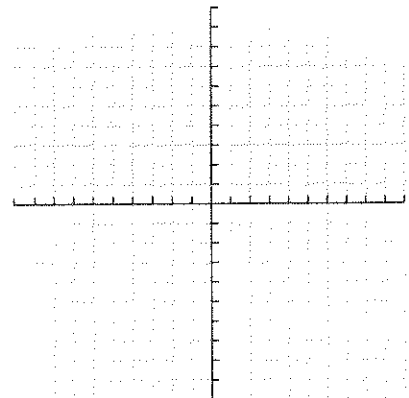
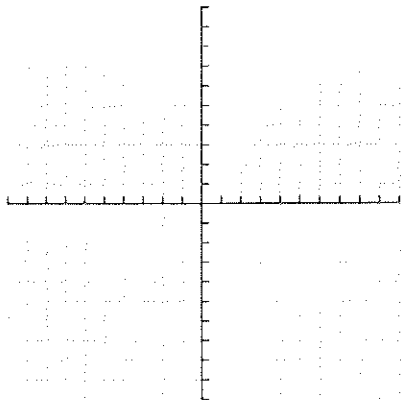
Part I. Complete the Table for problems 1-4.

Equation	Vertex	P=	Opens	Squared Variable?	Horizontal or Vertical?
$x + 4 = 16(y - 3)^2$					
$y = \frac{1}{4}(x + 6)^2$					
$x + 1 = -6(y + 10)^2$					
$y = \frac{3}{4}(x - 9)^2$					

Part II. Graph each of the following and state the vertex, focus, and directrix.

5.  $y = -1/8(x+1)^2$

6.  $x - 2 = (y - 3)^2$



Vertex: \_\_\_\_\_

Vertex: \_\_\_\_\_

Focus: \_\_\_\_\_

Focus: \_\_\_\_\_

Directrix: \_\_\_\_\_

Directrix: \_\_\_\_\_

Part III. Use the following information to write the equation for the parabola.

7. Focus: (1, -2) and Directrix  $y = 2$  \_\_\_\_\_

8. Vertex: (-2, 3) and Focus: (-5, 3) \_\_\_\_\_

9. Focus: (-1, -2.5) and Directrix  $y = -3.5$  \_\_\_\_\_

10. Focus: (0, -3) and Vertex: (5, -3) \_\_\_\_\_

(Circles) Put in Standard Form & Sketch Graph.

13.  $x^2 + y^2 + 4y + 4 - 9 = 0$

14.  $x^2 + 6x + y^2 = 7$

15.  $x^2 + y^2 + 2x + 4y - 11 = 0$