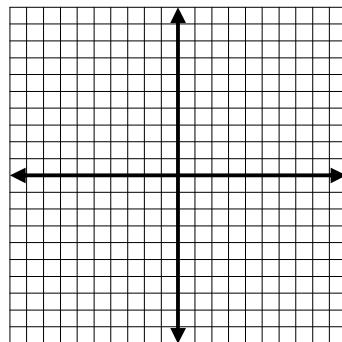


**Pre-Calc****HW Day 2 – Parabolas**

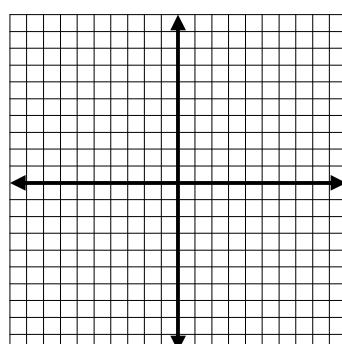
Name \_\_\_\_\_

Write an equation in standard form for each Parabola.

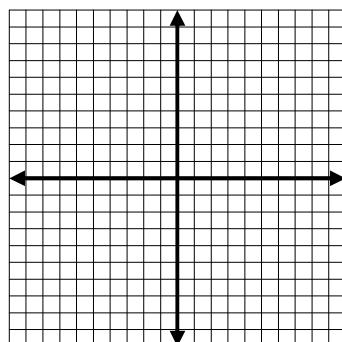
- a) Vertex
- $(0,0)$
- ; focus
- $(-4,0)$



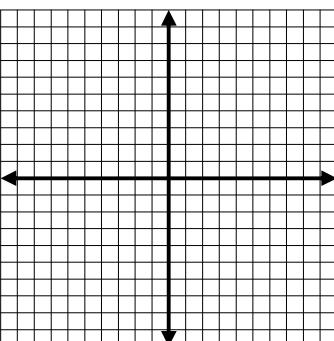
- b) Vertex
- $(0,0)$
- ; directrix
- $x = -6$



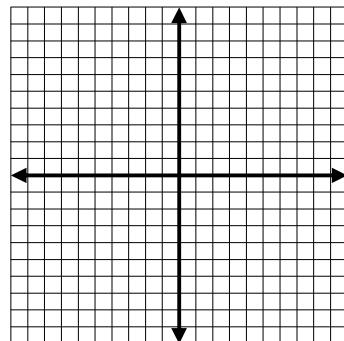
- c) Vertex
- $(0,0)$
- ; opens up, focal width = 10



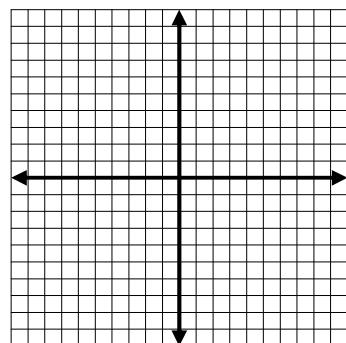
- d) Focus
- $(-4, 2)$
- ; vertex
- $(-5, 2)$



e) Focus  $(3, -4)$  and directrix  $x = 9$



f) Vertex  $(-3, 3)$ , opens upward, and focal width 16



g) Put the equation into standard form:  $y = x^2 + 8x - 6$

h) Put the equation into standard form:  $x = -4y^2 - 16y - 9$