

EQ:

❖ Patty Paper Activity: See directions on Power Point

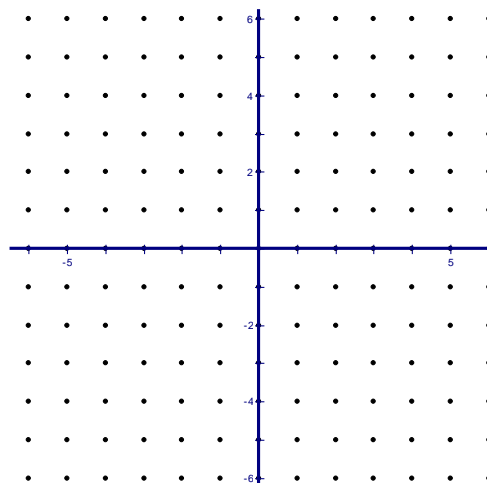
❖ Parabola --- defined in terms of a fixed point, called the _____, and a fixed line, called the _____

❖ In a parabola, the _____ from any _____ on the parabola to the _____ is equal to the _____ distance from _____ to the _____.

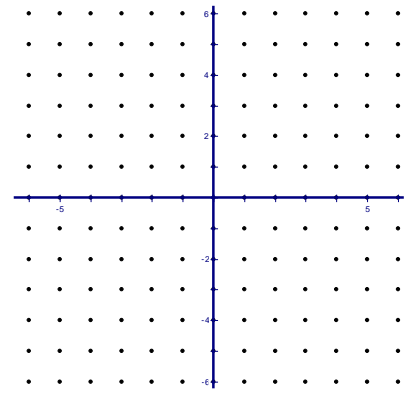
That is _____ = _____ for any point, P , on the parabola.

Standard Form of Equation	Horizontal Directrix	Vertical Directrix
Equation		
$p > 0$		
$p < 0$		
Focus		
Directrix		
Axis of Symmetry		

Ex. 1 Graph $x = -\frac{1}{8}y^2$. Label the vertex, focus, and directrix.

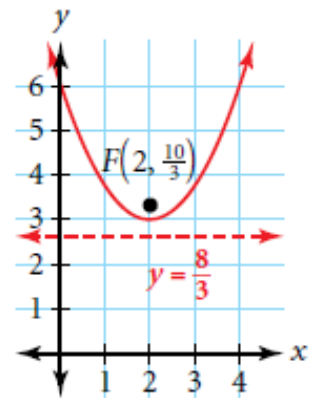


Ex. 2 Write the standard equation of the parabola with its vertex at the origin and with directrix $y = 4$.

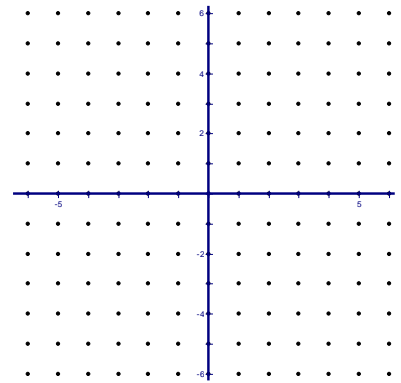


Standard Form of Translated Equation	Horizontal Directrix	Vertical Directrix
Equation		
$p > 0$		
$p < 0$		
Focus		
Directrix		
Axis of Symmetry		

Ex. 3 Write the standard equation of the parabola graphed below.



Ex. 4 Graph the parabola $y^2 - 8y + 8x + 8 = 0$. Label the vertex, focus, and directrix.



➤ ASSIGNMENT: Worksheet Review Parabolas #9 - 14, 17, 20, 22, 23, 29, 30, 32, 34 (HINT: GRAPH THESE FIRST) #37, 41, 43, 45