

Parabolas 7-2

Definition of a parabola

Vertex Form of the Equation		
Axis of symmetry		
Vertex		
Focus		
Directrix		
Direction of opening up		
Length of latus rectum		

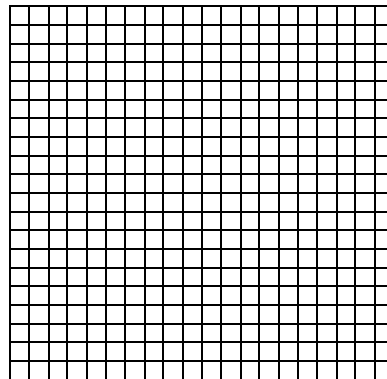
Change the equation into vertex form then identify the significant features. Then graph it.

1. $x^2 = 2y$

a =

h =

k =



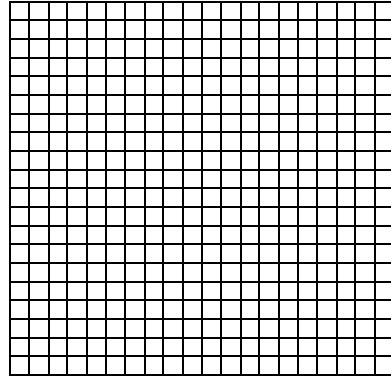
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2. $x^2 + 2x + 3 = y$

a =

h =

k =

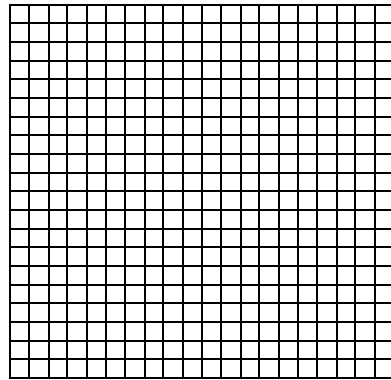


3. $x = 2y^2 + 8y + 6$

a =

h =

k =

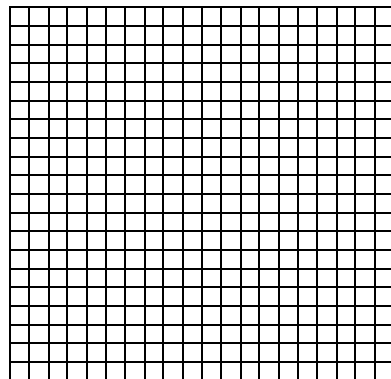


4. $x + 6y + 5 = y^2$

a =

h =

k =



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Write an equation of a parabola with the given focus and directrix.

4. $(3, 5)$, $y = 1$

5. $(4, -4)$, $y = -6$

6. $(5, -1)$, $x = 3$