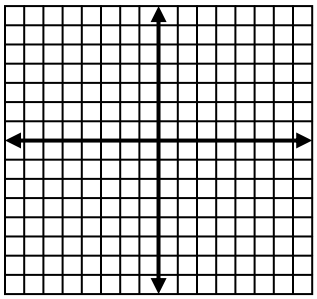
Parabola Notes Name_____

Standard Form

$y-k=\pm a(x-h)^2$	or	$x-h=\pm a(y-k)^2$
+ opens up vertex (h,k)		+ opens right vertex(h,k)
- opens down		- opens left

Accurately graph the parabola. State the vertex, domain, range, axis of symmetry, "a" value, and direction.

1. $y=-(x-3)^2+2$



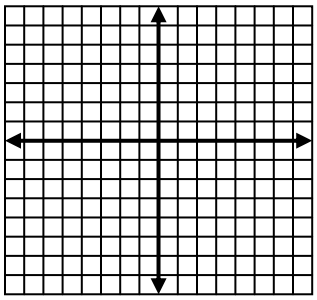
x | y

a) the vertex(,) b) the axis of symmetry

c) domain d) range

e) "a" value f) direction of opening

2. $x=y^2$



x | y

a) the vertex(,) b) the axis of symmetry

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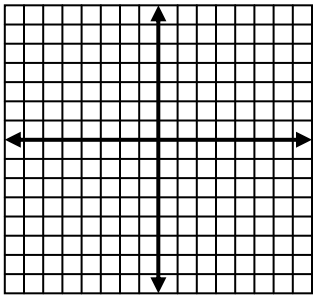
3. $x+2=2(y+1)^2$



x | y

a) the vertex(,) b) the axis of symmetry

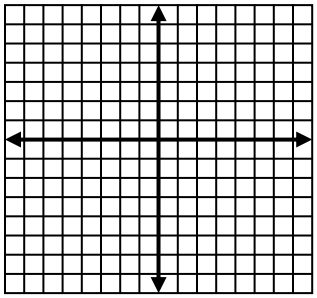
c) domain d) range

e) "a" value f) direction of opening

Not everything is in standard form, so you must complete the square to put it into standard form.

4. $x^2 - 6x - y + 5 = 0$

x	y



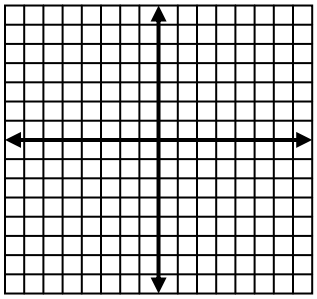
a) the vertex(,) b) the axis of symmetry

c) domain d) range

e) "a" value f) direction of opening

5. $y^2 - 8y + x + 10 = 0$

x y



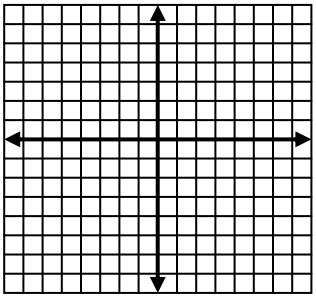
a) the vertex(,) b) the axis of symmetry

c) domain d) range

e) "a" value f) direction of opening

6. $2x^2 - 8x - y + 10 = 0$

x	y



a) the vertex(,) b) the axis of symmetry

c) domain d) range

e) "a" value f) direction of opening