

Converting Quadratic Equations Worksheet: Standard to Vertex

Convert the following quadratics from vertex form to standard form.

1) $y = -(x-1)^2 - 1$

$$-x^2 + 2x - 2$$

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

$$2x^2 - 8x + 5$$

3) $y = (x+4)^2 + 4$

$$x^2 + 8x + 20$$

Convert the following quadratics from standard form to vertex form.

4) $y = x^2 - 8x + 15$

$$y = (x-4)^2 - 1$$

5) $y = x^2 - 4x$

$$y = (x-2)^2 - 4$$

6) $y = x^2 + 8x + 18$

$$y = (x+4)^2 + 2$$

7) $y = x^2 + 4x + 3$

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

8) $y = x^2 - 2x + 5$

$$y = (x-1)^2 + 4$$

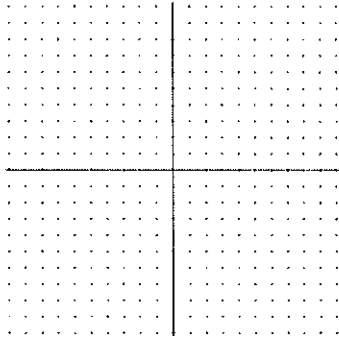
9) $y = x^2 - 8x + 17$

$$y = (x-4)^2 + 1$$

Convert the following quadratics from standard form to vertex form, then graph them.

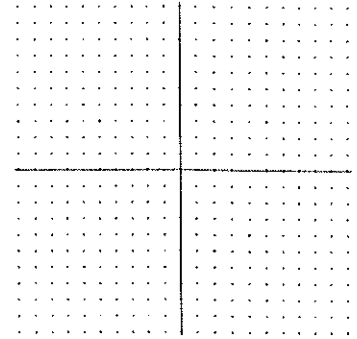
10) $y = x^2 - 6x + 7$

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



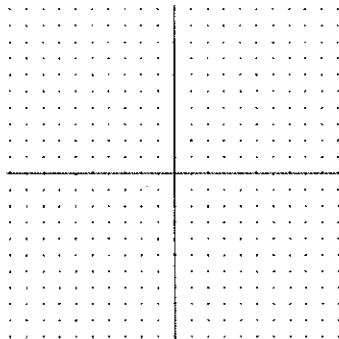
11) $y = x^2 + 6x + 5$

$$y = (x + 3)^2 - 4$$



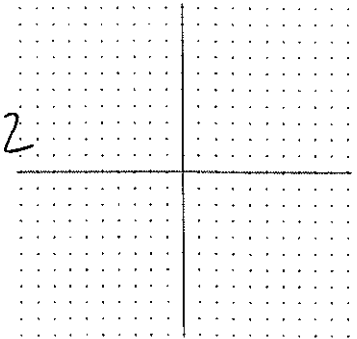
12) $y = -x^2 + 4x - 1$

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



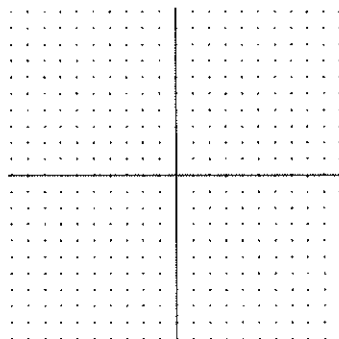
13) $y = -x^2 - 6x - 7$

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



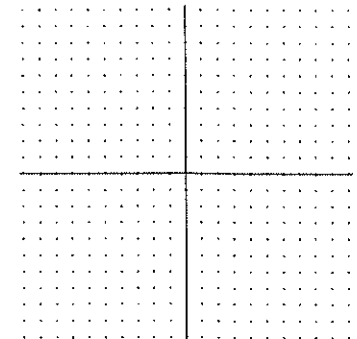
14) $y = 2x^2 - 8x + 9$

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



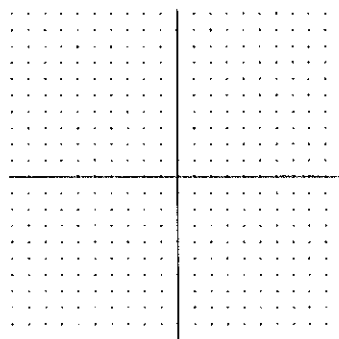
15) $y = -x^2 - 6x - 10$

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



16) $y = -2x^2 + 12x - 21$

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



17) $y = x^2 + 8x + 15$

$$y = (x + 4)^2 - 1$$

