

Warm Up

Factor

$$1) m^2 - 28m + 3m = 0$$

$$m = -7$$

$$m = +4$$

Use the Quadratic Formula

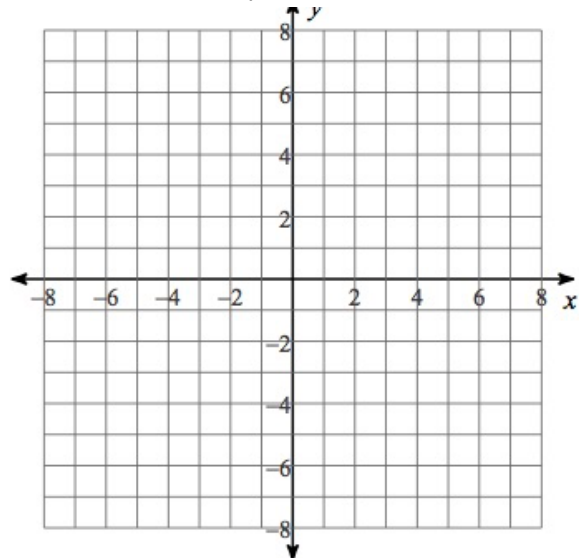
$$2) 3n^2 + 6n = 22$$

$$1.9$$

$$-3.9$$

Graph

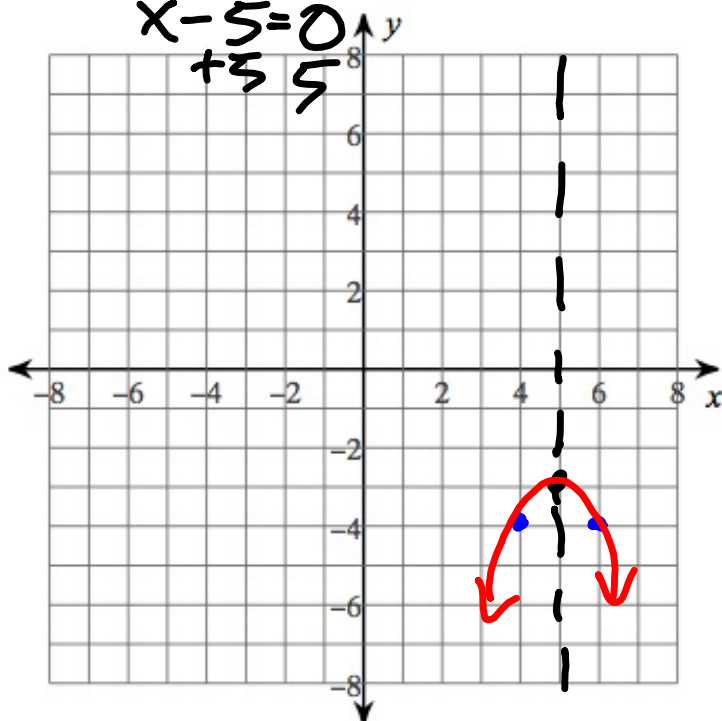
$$3) (n + 2)(n - 2) = 0$$



5-2 Graphing in Vertex form

1) $y = -1(x - 5)^2 - 3$

$$x - 5 = 0$$
$$+5 \quad 5$$



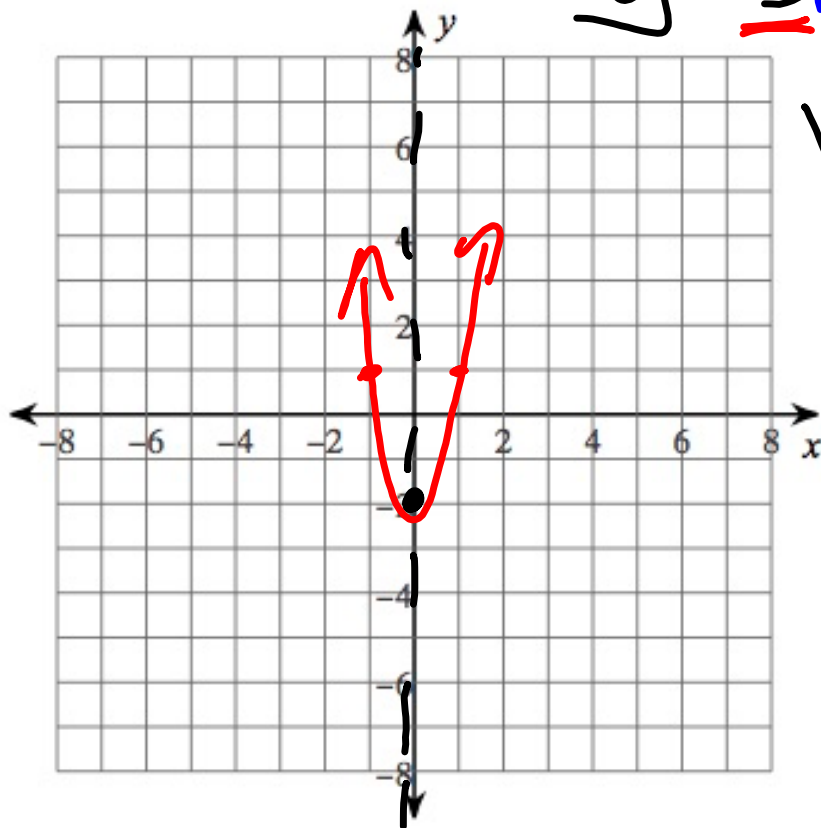
$$V = (5, -3)$$

A.S. $\rightarrow 5$

$$M = -\frac{1}{1}$$

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

$$y = \underline{3}x^2 - 2$$

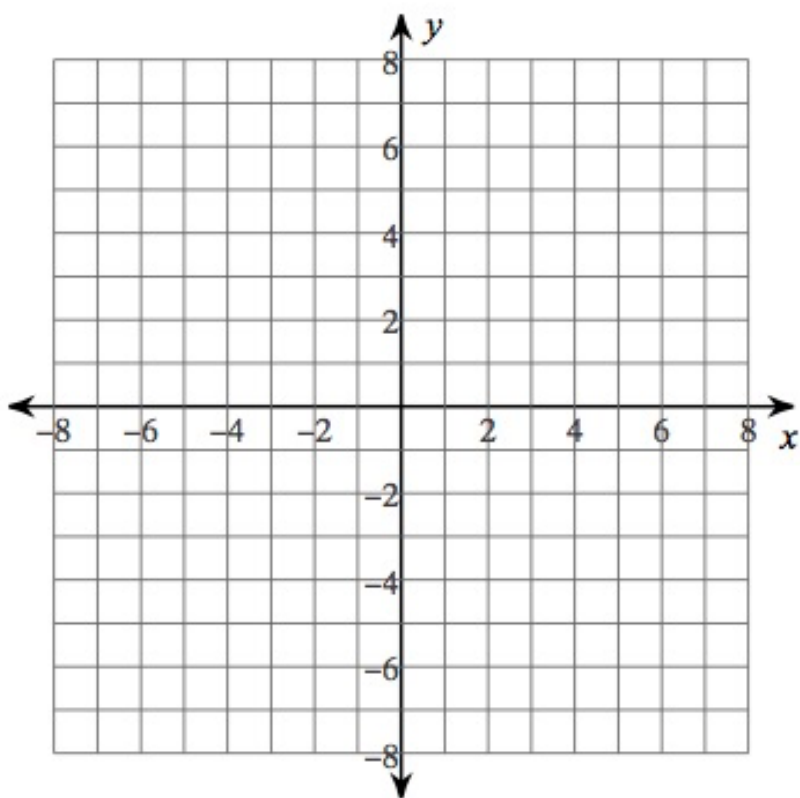


$$V = (0, -2)$$

$$A.S. = 0$$

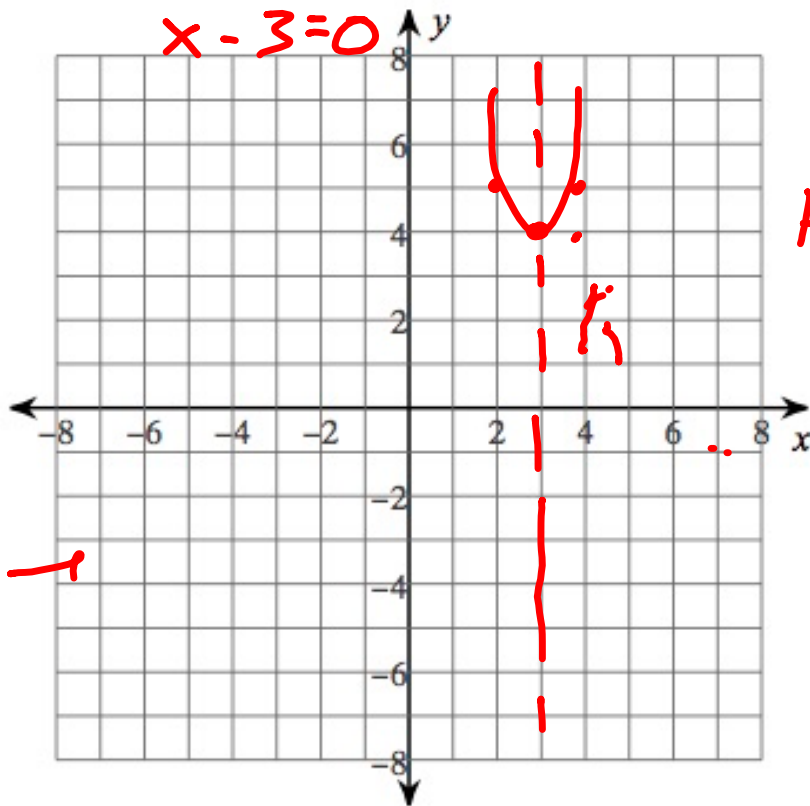
$$M = \underline{3}$$

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



$$4) y = 1(x + 3)^2 + 4$$

$$x - 3 = 0$$

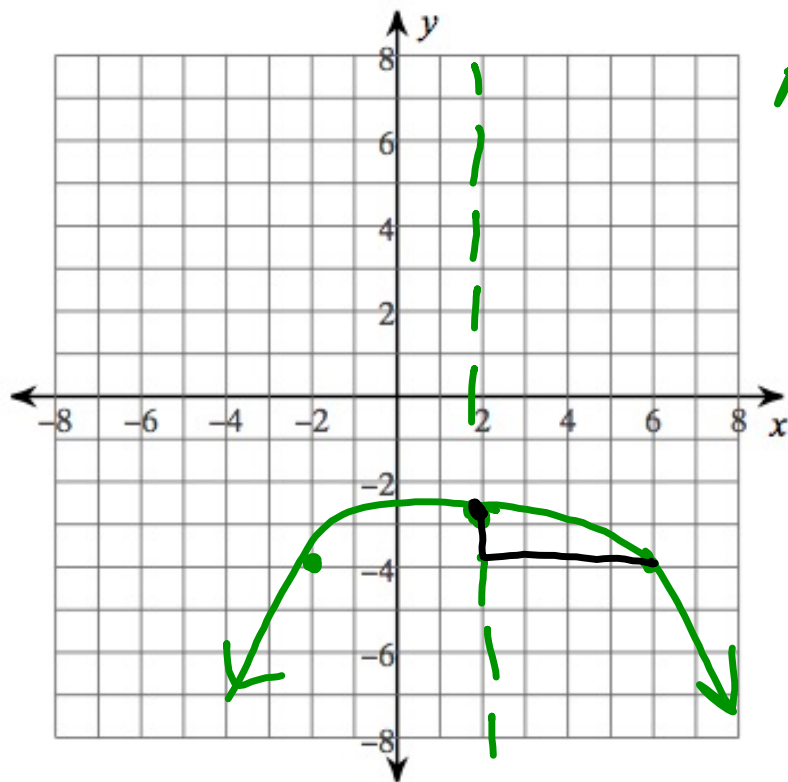


$$A.S. = 3$$

$$M = 1$$

$$\begin{matrix} x & y \\ (3, & 4) \end{matrix}$$

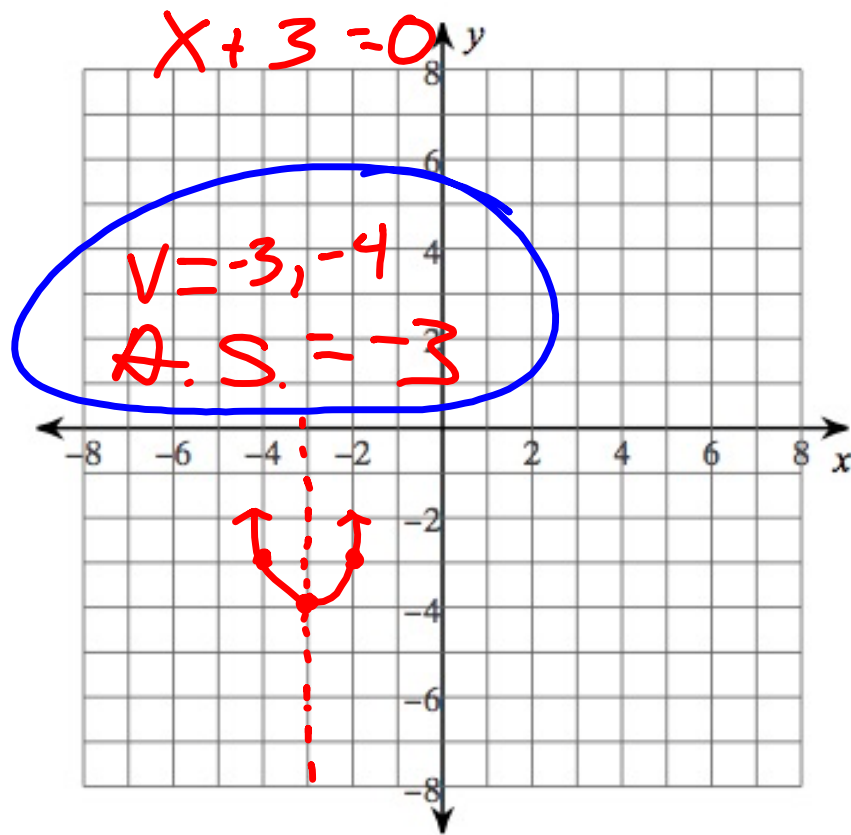
$$5) y = -\frac{1}{4}(x-2)^2 - 3 \quad M = -\frac{1}{4} \quad \underline{(2, -3)}$$



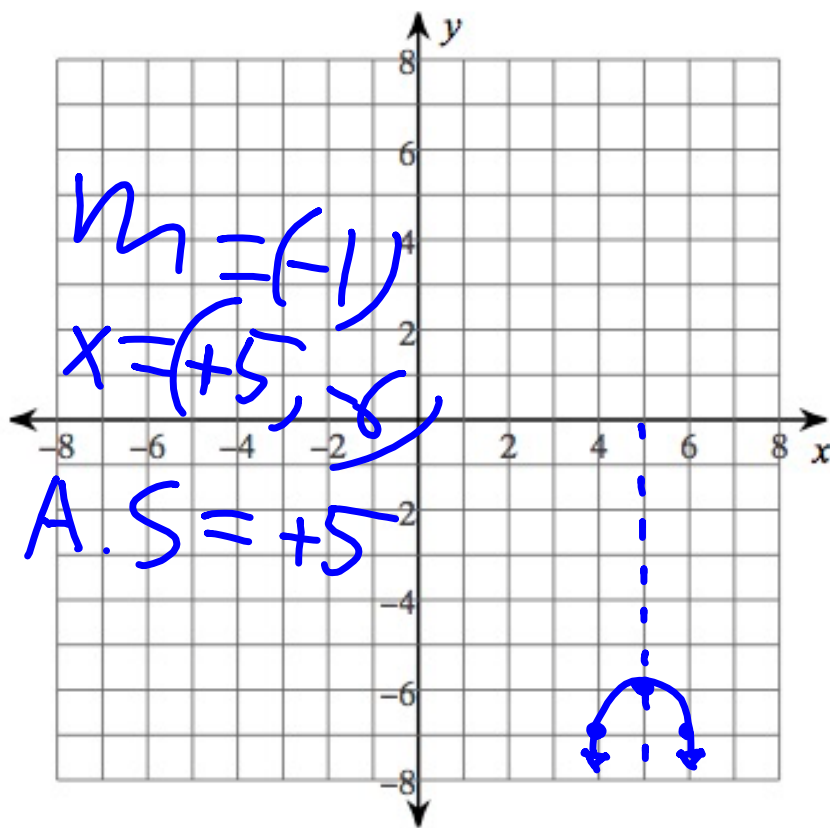
$$A.S. = 2$$

$$M = \frac{-1}{4} \rightarrow$$

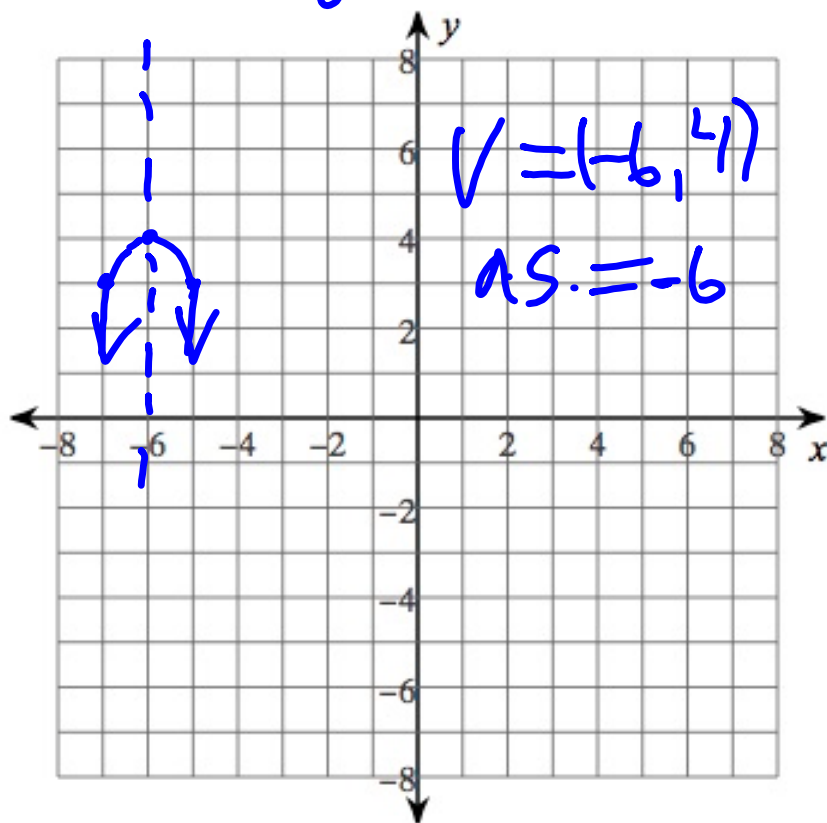
$$6) y = (x + 3)^2 - 4$$



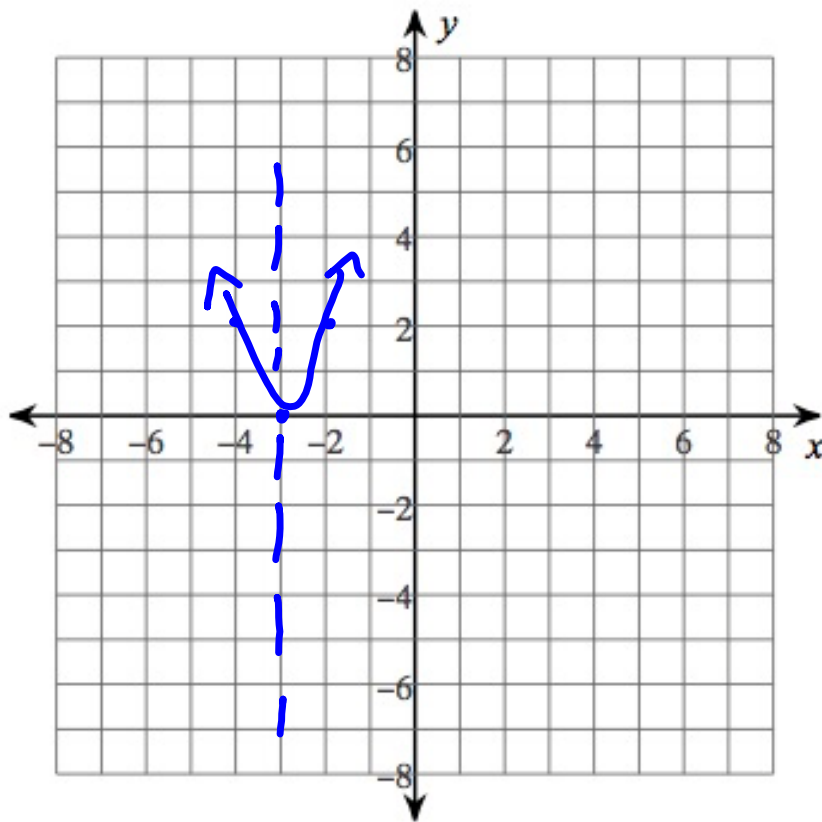
$$7) y = -(x - 5)^2 - 6$$



$$8) y = -(x + \underset{-b}{6})^2 + 4$$



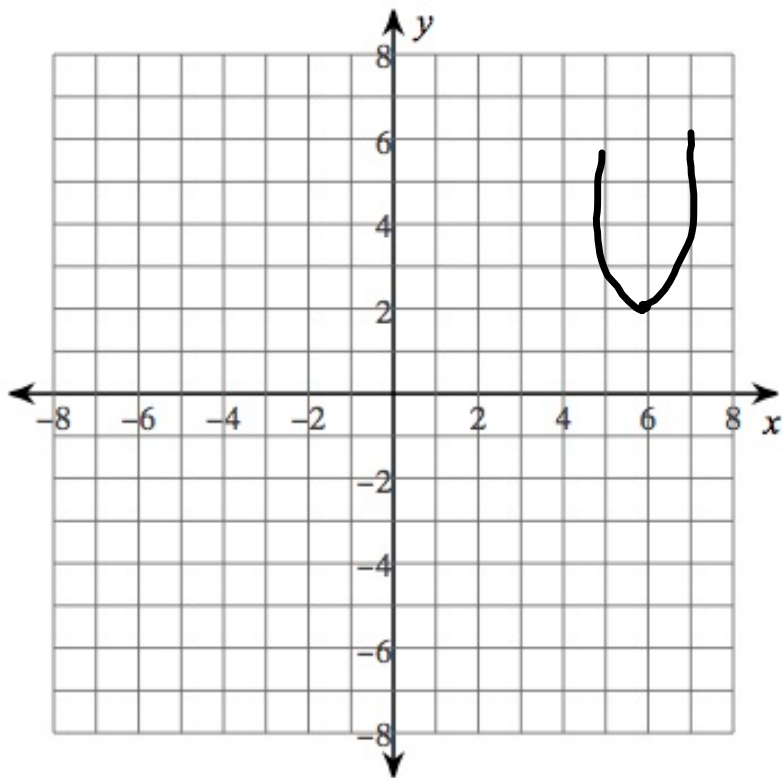
9) $y = 2(x + 3)^2 + 0$



$$A.S. = -3$$

$$V = (-3, 0)$$

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



$$A.S. = 6$$

$$V = 2$$

5-2 Graphing in Vertex form

Objective

- I can graph a quadratic equation in vertex form.

Do problem B on your Skills sheet.