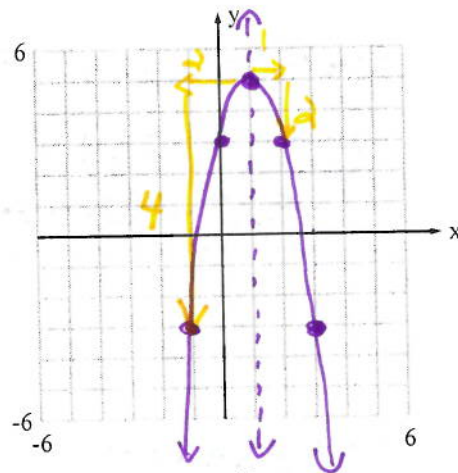
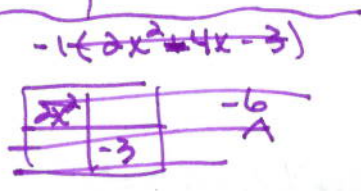


Quiz #4-1 Review Worksheet

- 1) Graph the quadratic equation in standard form:  $y = -2x^2 + 4x + 3$ .  
 Label line of symmetry, vertex, and two additional points.  
 Identify the  $y$ -intercepts.

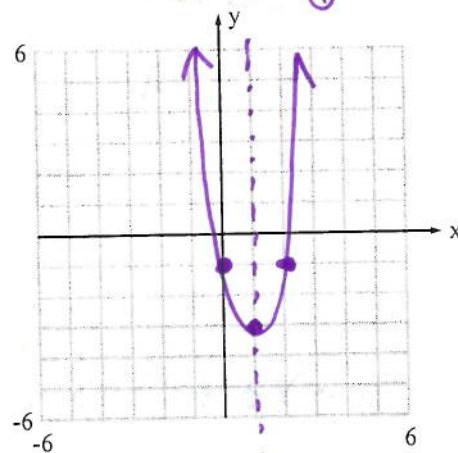
$$x = \frac{-b}{2a} \quad x = \frac{-4}{2(-2)} = 1 \quad \left. \begin{array}{l} y = -2(1)^2 + 4(1) + 3 \\ y = 5 \end{array} \right\}$$

a.o.s.  $x=1$   
vertex  $(1, 5)$   
 $y$ -int.  $3$



- 2) Graph the quadratic equation in vertex form:  $y = 2(x-1)^2 - 3$ .  
 Label vertex, line of symmetry, and two additional points.  
 Identify the  $y$ -intercepts

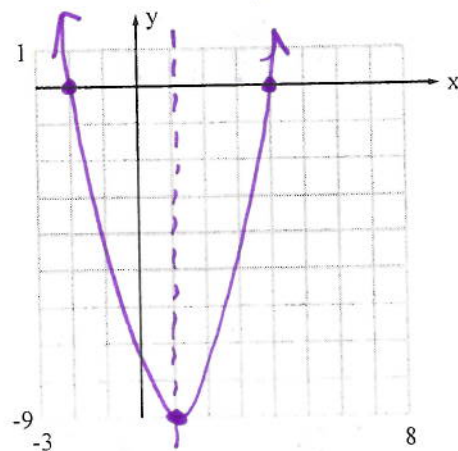
vertex  $1, -3$   
a.o.s.  $x=1$   
 $y$ -int.  $-1$



- 3) Graph the quadratic equation in intercept form:  $y = (x-4)(x+2)$ .  
 Label the  $x$ -intercepts, line of symmetry, and vertex.

$x$ -int  $4, -2$   
a.o.s.  $x=1$   
vertex  $(1, -9)$

$$y = (1-4)(1+2) \\ y = -3 \cdot 3 \\ y = -9$$



Tell whether each function has a minimum or maximum value. Then find that value.

4)  $y = -3x^2 + 12x - 10$

$$x = \frac{-b}{2a} = \frac{-12}{-6} = 2$$

$$y = -3(2)^2 + 12(2) - 10$$

**maximum**  
 **$y = 2$**

5)  $f(x) = 2(x+4)(x-5)$

$$\text{vertex } \Rightarrow \frac{-4+5}{2} = \frac{1}{2} = x$$

$$2\left(\frac{1}{2}+4\right)\left(\frac{1}{2}-5\right) \\ 2(4.5)(-4.5)$$

**minimum  $y = -40.5$**