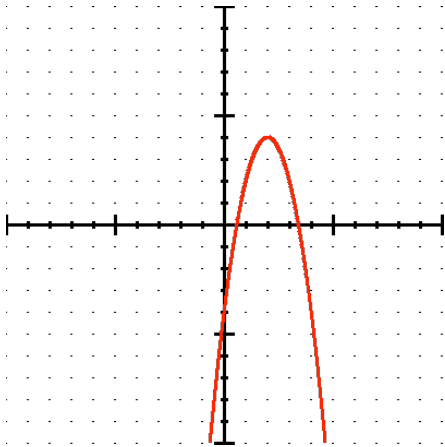
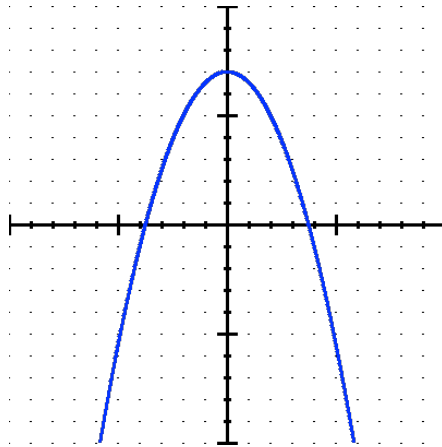


1)  $y = -2x^2 + 8x - 4$



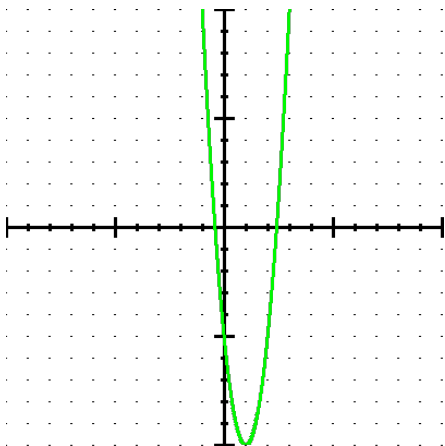
vertex: (2, 4)  
axis of symmetry:  $x = 2$   
y-intercept: (0, -4)  
maximum: 4  
minimum: none

2)  $y = -\frac{1}{2}x^2 + 7$



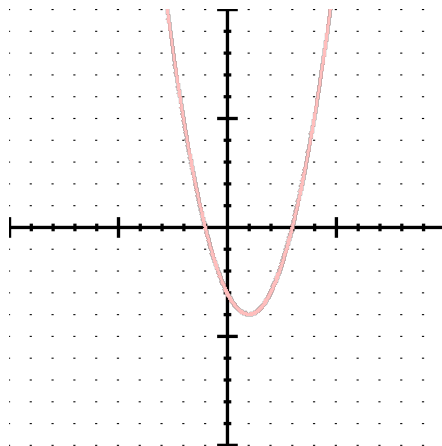
vertex: (0, 7)  
axis of symmetry:  $x = 0$   
y-intercept: (0, 7)  
maximum: 7  
minimum: none

3)  $y = 5x^2 - 10x - 5$



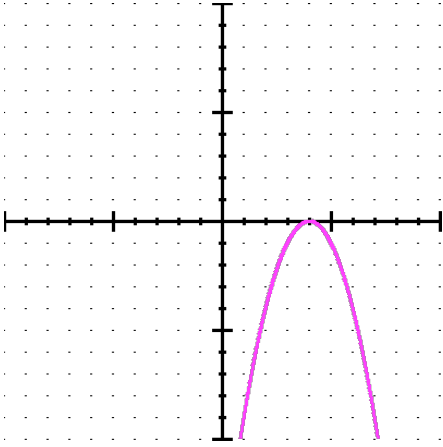
vertex: (1, -10)  
axis of symmetry:  $x = 1$   
y-intercept: (0, -5)  
maximum: none  
minimum: -10

4)  $x^2 - 2x - 3 = 0$



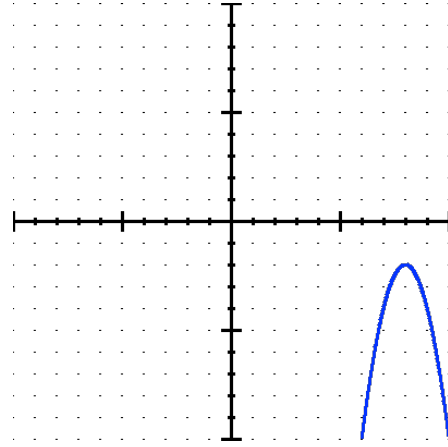
Solutions:  $x = -1, 3$

$$5) -x^2 + 8x - 16 = 0$$



Solutions:  $x = 4$

$$6) -2x^2 + 32x - 130 = 0$$



Solutions: none

$$7) 0 = 2x^2 - 5x - 8$$

$x = -1.11, 3.61$

$$8) 0 = 4x^2 - 7x + 1$$

$x = 0.15, 1.59$

$$9) -5.36x^2 - 17x - 2.67 = 0$$

$x = -3.01, -0.17$

$$10) \begin{aligned} 5 &= -0.04x^2 + 1.2x \\ 0 &= -0.04x^2 + 1.2x - 5 \end{aligned}$$

$x = 5, 25$

$$11) -2|x + 3| > -6$$

$-5 < x < -1$

$$12) \left( \frac{2x^2}{y^3} \right)^3 \cdot \frac{4y^4}{x^{-1}} = \frac{8x^6}{y^9} \cdot \frac{4y^4x}{1} = \frac{32x^7}{y^5}$$

$$13) x^2 - 2x - 48 = (x - 8)(x + 6)$$