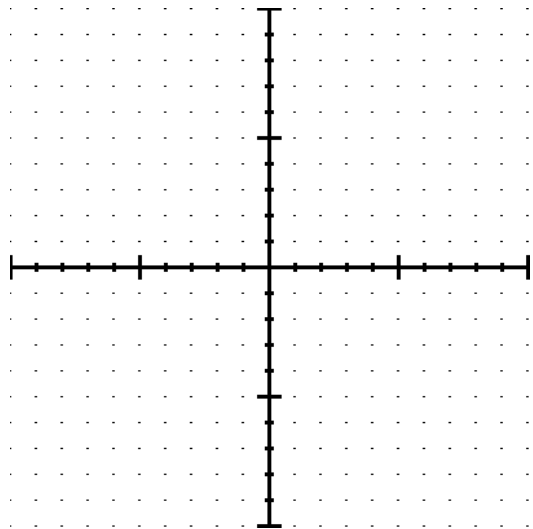


A)  $y = x^2 + 4x - 5$



Axis of Symmetry:

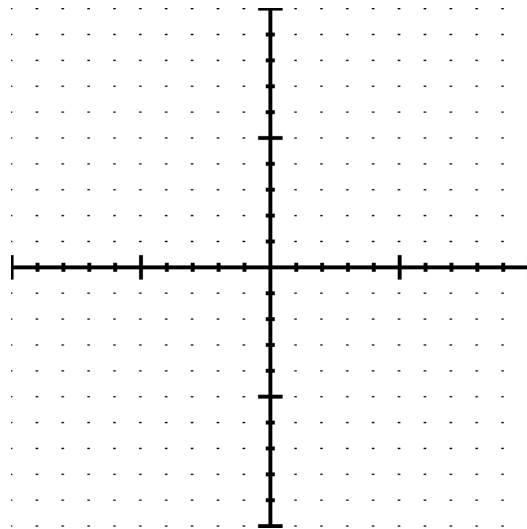
Maximum:

Minimum:

Vertex:

Y- intercept:

B)  $y = -2x^2 + 12x - 8$



Axis of Symmetry:

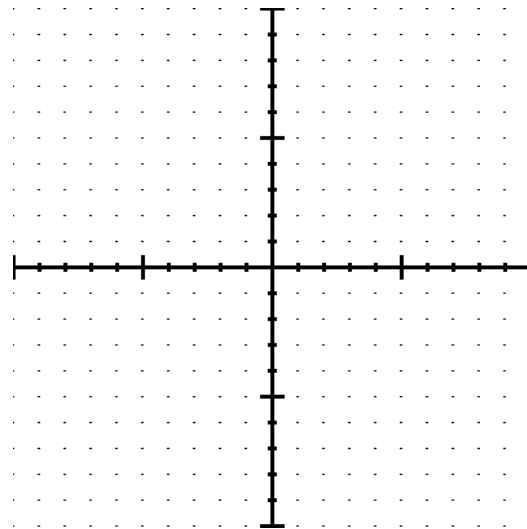
Maximum:

Minimum:

Vertex:

Y- intercept:

C)  $y = \frac{1}{3}x^2 + 2x - 4$



Axis of Symmetry:

Maximum:

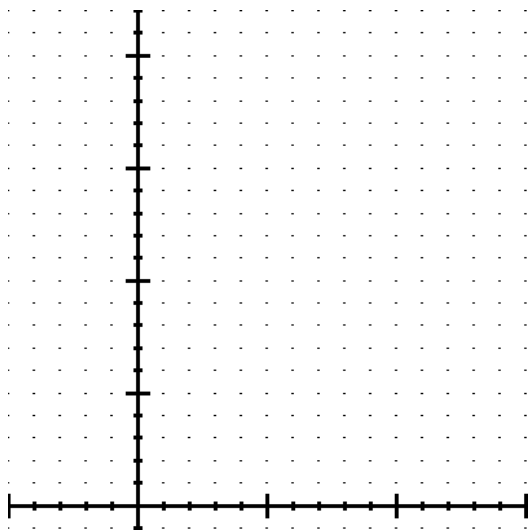
Minimum:

Vertex:

Y- intercept:

**Shock and Horror** - One of the vertices below will have a decimal coordinate!!!

1)  $y = -\frac{1}{2}x^2 + 6x + 3$



Axis of Symmetry:

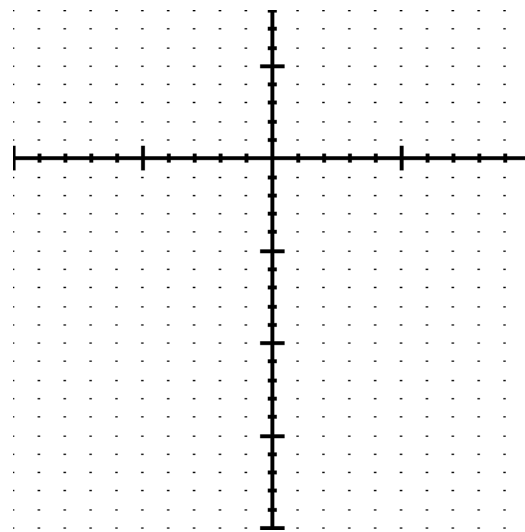
Maximum:

Minimum:

Vertex:

Y- intercept:

2)  $y = -8x^2 - 12x + 1$



Axis of Symmetry:

Maximum:

Minimum:

Vertex:

Y- intercept:

3) Students are selling packages of flower bulbs to raise money for a class trip. Last year, when students charged \$5 per package, they sold 150 packages. The students want to increase the cost per package. They estimate that they will lose 10 sales for each \$1 increase in the cost per package. The sale revenue  $R$  (in dollars) generated by selling the packages is given the equation  $R = (5 + n)(150 - 10n)$  where  $n$  is the number of \$1 increases.

a) Write the equation in standard form

b) Find the maximum value of the equation

c) At what price should the packages be sold to generate the most sales revenue?  
*Explain your reasoning.*