

$$y = -6x^2 - 30x - 24$$

1st y-int:  $(0, -24)$  2nd x-int:

$$y = -6(0)^2 - 30(0) - 24$$

$$= 0 - 0 - 24 = -24$$

$$y = -6(x^2 + 5x + 4)$$

$$y = -6(x+1)(x+4)$$

$$0 = -6(x+1)(x+4)$$

$$x+1=0$$

$$x = -1$$

$$(-1, 0)$$

$$x+4=0$$

$$x = -4$$

$$(-4, 0)$$

3rd L.O.S.

$$\frac{-1 + -4}{2} = -2.5$$

$$x = -2.5$$

4th Vertex

$$y = -6(-2.5+1)(-2.5+4)$$

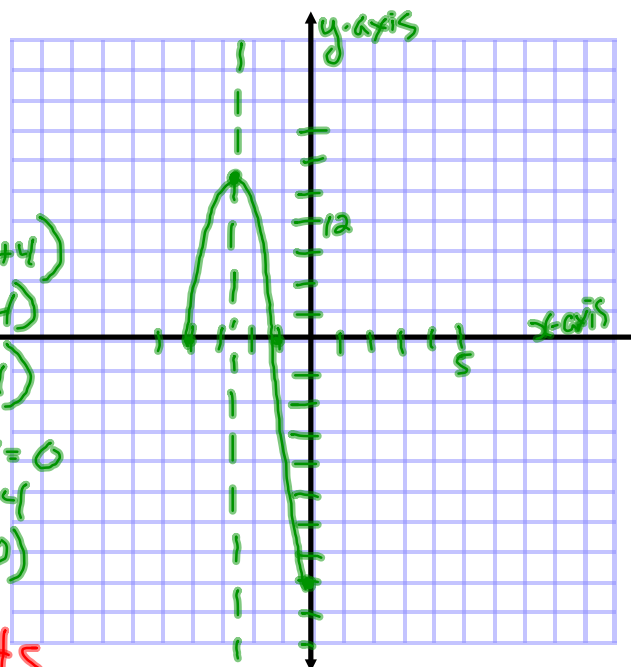
$$= 13.5$$

$$(-2.5, 13.5)$$

5th 2 points

$$x \quad | \quad -5 \quad | \quad -2$$

$$y \quad | \quad -24 \quad | \quad 12$$



$$y = 3x^2 - 3x - 6$$

1st y-int

$$y = 3(0)^2 - 3(0) - 6$$

$$= -6$$

$$(0, -6)$$

3rd L.O.S.

$$\frac{2 \pm 1}{2} = \frac{1}{2}$$

$$x = \frac{1}{2}$$

4th vertex

$$y = 3\left(\frac{1}{2}\right)^2 - 3\left(\frac{1}{2}\right) - 6$$

$$= -6.75$$

$$\left(\frac{1}{2}, -6.75\right)$$

2nd x-int

$$y = 3x^2 - 3x - 6$$

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

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

$$0 = 3(x-2)(x+1)$$

$$x-2=0$$

$$x=2$$

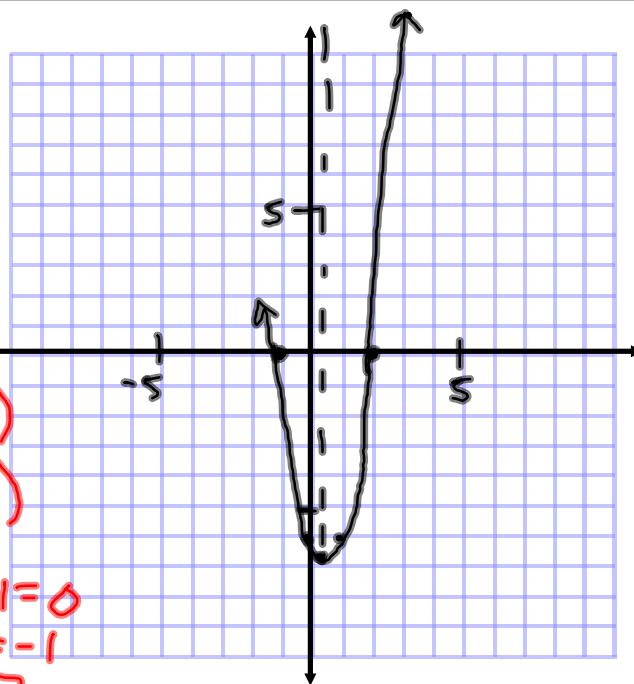
$$x+1=0$$

$$x=-1$$

$$(2, 0) \text{ \& } (-1, 0)$$

5th 2 points

x	1	3
y	-6	12



$$y = -3x^2 + 12x - 9$$