

1. Find the equation for the LOS and the coordinates for the vertex of each quadratic.

a) $y = 4x^2 - 16x - 7$
 $\text{LOS } x = \frac{16}{8} = 2$

vertex $(2, -23)$

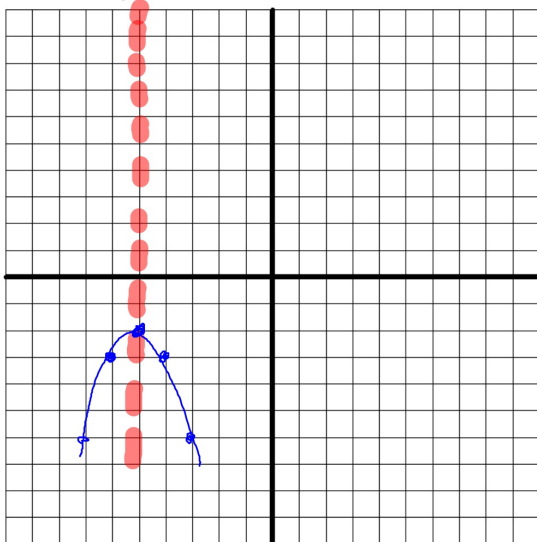
b) $y = -x^2 + 12x - 13$
 $\text{LOS } x = \frac{-12}{-2} = 6$
 vertex $(6, 23)$

c) $y = 5x^2 + 20$

LOS $x = 0$
 vertex $(0, 20)$

3. Graph the following quadratic using the vertex and two points on each side.

$y = -x^2 - 10x - 27$



LOS
 $x = \frac{-10}{-2} = -5$

x	y
-3	-3
-5	-2
-7	-3

2. Find the y-intercept for each quadratic.

a) $y = -3x^2 + 6x - 7$

y-int = -7

b) $y = 9x^2 + 7x + 0$

y-int = 0

c) $y = 4x^2 + 3x + 18$

y-int = 18

4. Find the x-intercepts of the graph of the following quadratic by factoring: $y = x^2 + 6x - 16$

$0 = x^2 + 6x - 16$
 $0 = (x - 2)(x + 8)$
 $x = 2, -8$

5. Given the x-intercepts of a parabola are 4 and 14 find the equation for the LOS.

LOS $x = \frac{4 + 14}{2} = 9$