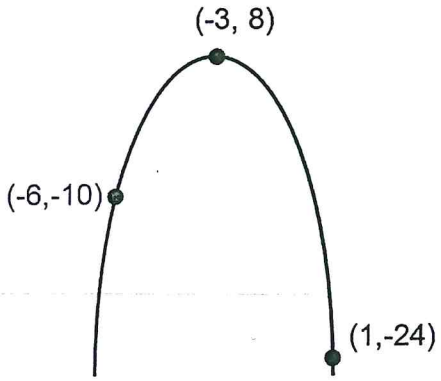
Algebra 1 Bellwork Thursday, May 12, 2016

1. State if each parabola opens up or down.

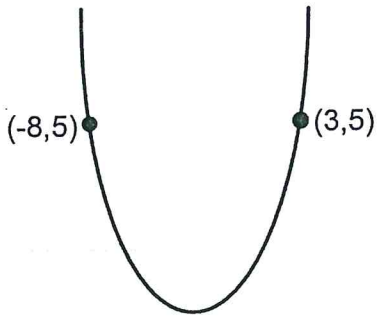
a) $y = -805x^2 + 9x - 7$ b) $y = 4x - x^2 + 3$ c) $y = 0.0013x^2 - 29x - 108$

2. The LOS of the quadratic equation $y = -3x^2 - 12x + 7$ is $x = -2$. State the coordinates of the vertex.

3. Find the coordinates of two other points on this parabola



4. Write the equation of the LOS of this parabola.



4. Is the vertex of each parabola a Maximum or a Minimum?

a) $y = 3.07x^2 + 13x - 49$ b) $y = x^2 - 270x$ c) $y = -6x^2 + 97$

Algebra 1 Bellwork Thursday, May 12, 2016 ANSWERS

1. State if each parabola opens up or down.

a) $y = -805x^2 + 9x - 7$ Neg DOWN

b) $y = 4x - x^2 + 3$ Neg DOWN

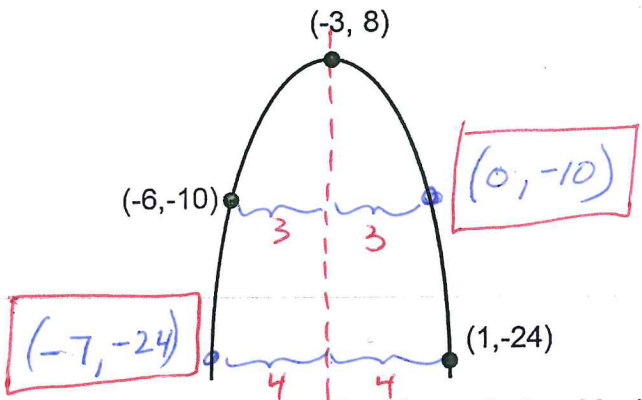
c) $y = 0.0013x^2 - 29x - 108$ pos up

2. The LOS of the quadratic equation $y = -3x^2 - 12x + 7$ is $x = -2$. State the coordinates of the vertex.

$-3(-2)^2 - 12(-2) + 7$
$-12 + 24 + 7 = 19$

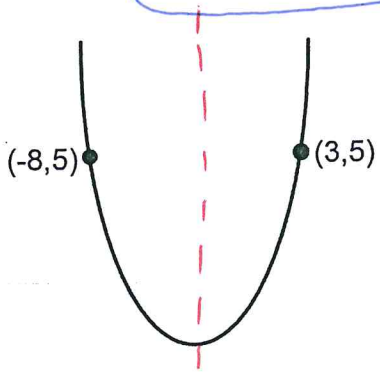
(-2, 19)

3. Find the coordinates of two other points on this parabola



4. Write the equation of the LOS of this parabola.

LOS: $x = -2.5$



LOS is exactly halfway between these 2 pts. Halfway between -8 & 3 is:

$x = \frac{-8+3}{2} = -2.5$

4. Is the vertex of each parabola a Maximum or a Minimum?

a) $y = 3.07x^2 + 13x - 49$ opens up MIN

b) $y = x^2 - 270x$ opens up MIN

c) $y = -6x^2 + 97$ opens down Max