Algebra 1 Bellwork Monday, May 16, 2016

1. Find the equation of the LOS and the coordinates of the Vertex for each parabola.

a) $y = -2x^2 + 8x - 1$ b) $f(x) = x^2 - 9x + 8$ c) $y = 7x^2 - 113$

2. Find the y-intercept for each parabola.

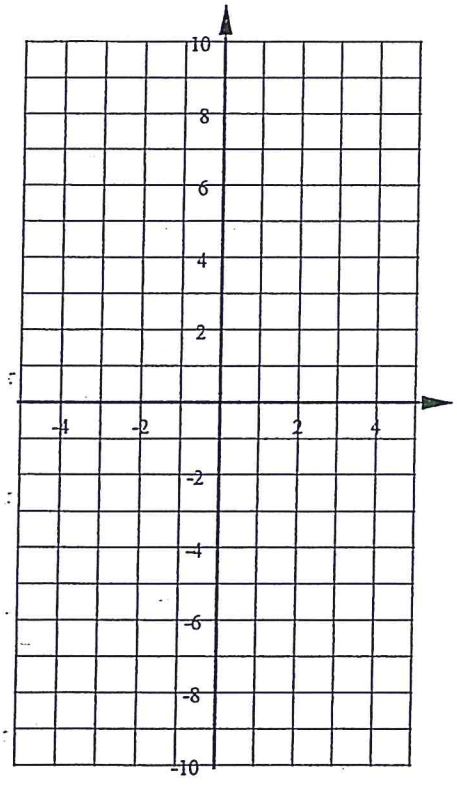
a) $f(x) = 11x^2 + x - 14$ b) $y = 9x^2 - 2x$

3. Write an equation for a parabola to fits the following description.

a) The Vertex is at the point $(0, -5)$ and the parabola opens up.

b) The parabola opens down but the Line of Symmetry is to the left of the y-axis.

4. Graph this quadratic with at least 5 points. $y = -3x^2 + 12x - 4$



Algebra 1 Bellwork Monday, May 16, 2016 Answers

1. Find the equation of the LOS and the coordinates of the Vertex for each parabola.

a) $y = -2x^2 + 8x - 1$ LOS: $x = \frac{-8}{2(-2)} = 2$ Vertex (2, 7)

b) $f(x) = x^2 - 9x + 8$ LOS: $x = \frac{-9}{2(1)} = 4.5$ Vertex (4.5, -12.25)

c) $y = 7x^2 - 113$ LOS: $x = 0$ Vertex (0, -113)

2. Find the y-intercept for each parabola.

a) $f(x) = 11x^2 + x - 14$ y-int = -14

b) $y = 9x^2 - 2x$ y-int = 0

3. Write an equation for a parabola to fits the following description.

a) The Vertex is at the point $(0, -5)$ and the parabola opens up.

moved down 5 a is pos

ex answer: $y = x^2 - 5$

b) The parabola opens down but the Line of Symmetry is to the left of the y-axis.

a is neg $\frac{-b}{2a}$ is neg

ex answer $y = -2x^2 - 4x +$

4. Graph this quadratic with at least 5 points. $y = -3x^2 + 12x - 4$

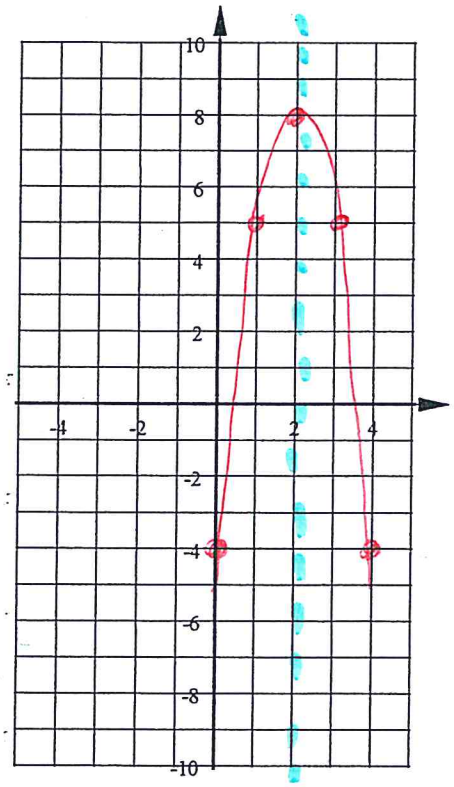
opens down & Narrow

LOS: $x = \frac{-12}{2(-3)} = 2$

vertex (2, 8)

y-int = -4

X	Y
1	5



LOS
X = 2