Bellwork Thursday, June 5, 2014

1. Without using a graphing calculator put the following quadratic functions in order from Widest to Narrowest:

A. $y = -3x^2 + 2x - 1$

B. $y = -0.8x^2 + 16x + 11$

C. $y = 5x^2 - 9x$

D. $y = -7x^2 - 8x - 26$

E. $y = 0.15x^2 - 6x + 34$

Widest
E
B
A
C
D
Narrowest

2. The vertex of a parabola is (6, -1). Write the equation of the Line of Symmetry.

$x = 6$

3. The LOS of the quadratic $y = 2x^2 - 12x + 5$ is $x = 3$. Write the coordinates of the vertex.

$(3, -13)$

$2(3)^2 - 12(3) + 5$
$18 - 36 + 5$
$-18 + 5$

4. State if the vertex of each parabola is a Maximum or a Minimum.

a) $y = -9x^2 + 4x + 15$

max

b) $y = 0.65x^2 - 18x + 3$

min

c) $y = 20x^2 - 94x - 113$

min

Graphing Quadratics: Use at least 5 points. Include the vertex and two points on each side.

Graph: $y = -x^2 - 6x - 2$

x	y
-2	6
-1	3
0	-2
1	-9
2	-18

x	y
-3	7
-4	6