Honors Algebra 2 _____Key_____ the Quadratic Grapher

Graphing Quadratics – Standard Form Date: _____ Period: _____

Given the graph of a quadratic, state all the important information.

1.) Opens: DOWN

Axis of Symmetry: X=1

Vertex: (1,2)

Max/Min: MAX

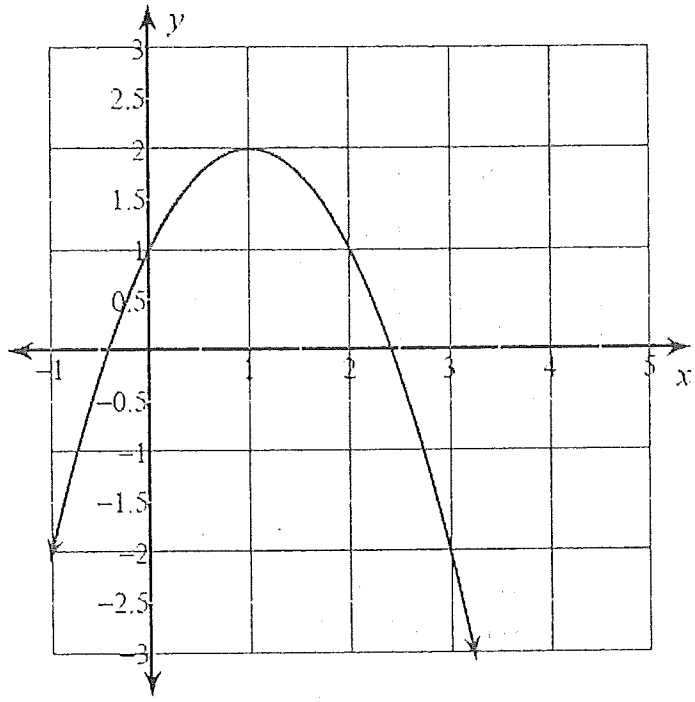
Domian: (-∞, ∞)

Range: (-∞, 2]

End Behavior:

AS X APPROACHES +∞, f(x) APPROACHES -∞.

AS X APPROACHES -∞, f(x) APPROACHES -∞.



2.) Opens: UP

Axis of Symmetry: X=4

Vertex: (4,-2)

Max/Min: MIN

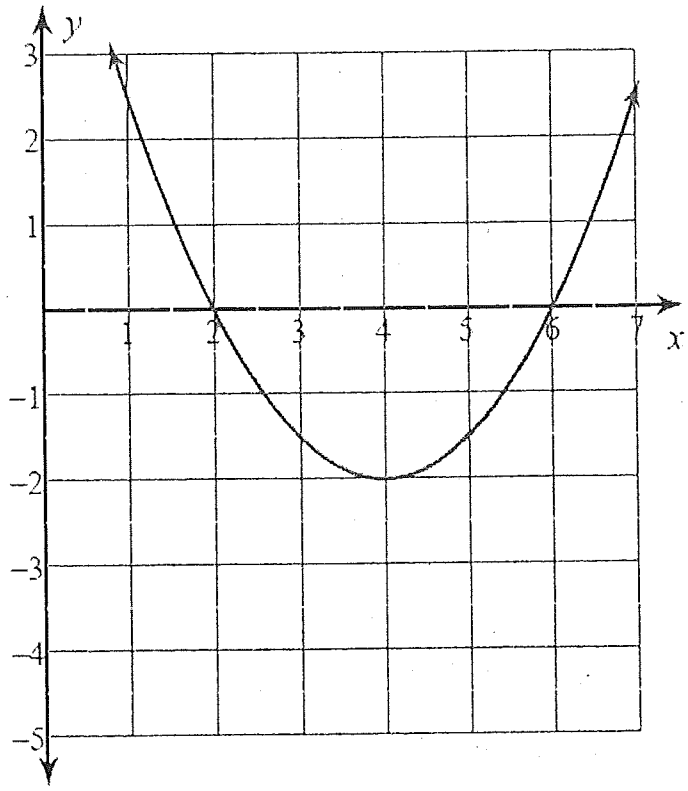
Domian: (-∞, ∞)

Range: [-2, ∞)

End Behavior:

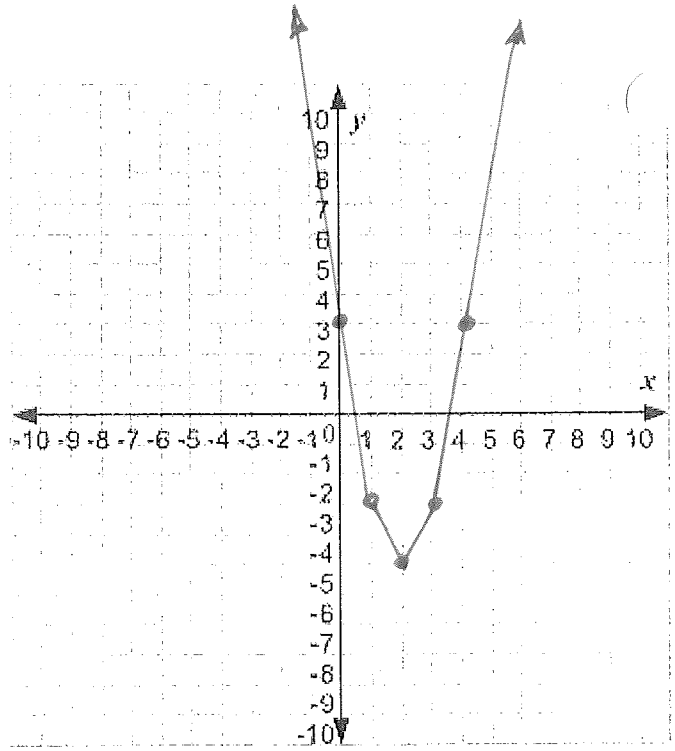
AS X APPROACHES +∞, f(x) APPROACHES +∞.

AS X APPROACHES -∞, f(x) APPROACHES +∞.



Graph each quadratic equation. State all the important information

3.) $y = 2x^2 - 8x + 3$



Opens: UP

Axis of Symmetry: X = 2

Vertex: (2, -5)

Max/Min: MIN

Domian: (-∞, ∞)

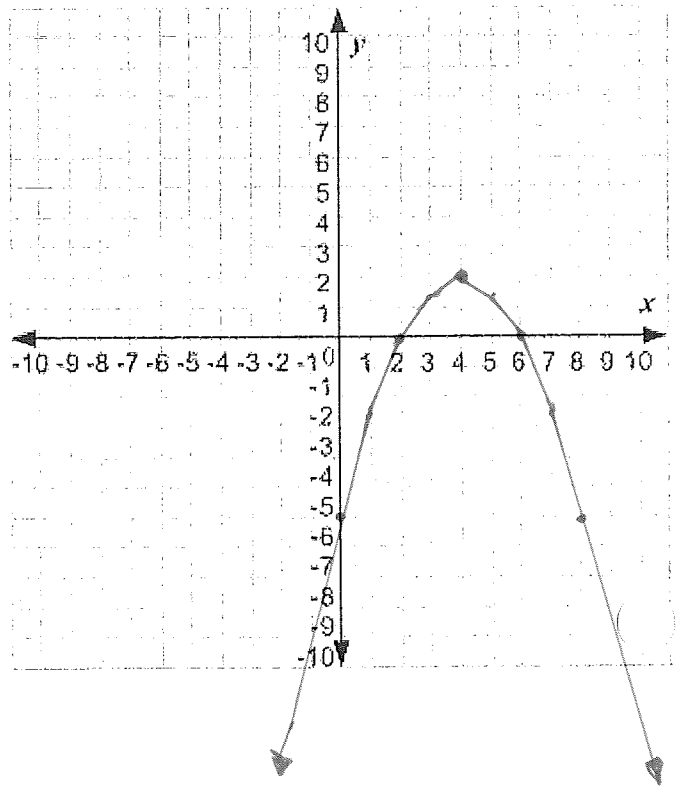
Range: [-5, ∞)

End Behavior:

As x APPROACHES +∞, f(x) APPROACHES +∞.

As x APPROACHES -∞, f(x) APPROACHES +∞.

4.) $y = -\frac{1}{2}x^2 + 4x - 6$



Opens: DOWN

Axis of Symmetry: X = 4

Vertex: (4, 2)

Max/Min: MAX

Domian: (-∞, ∞)

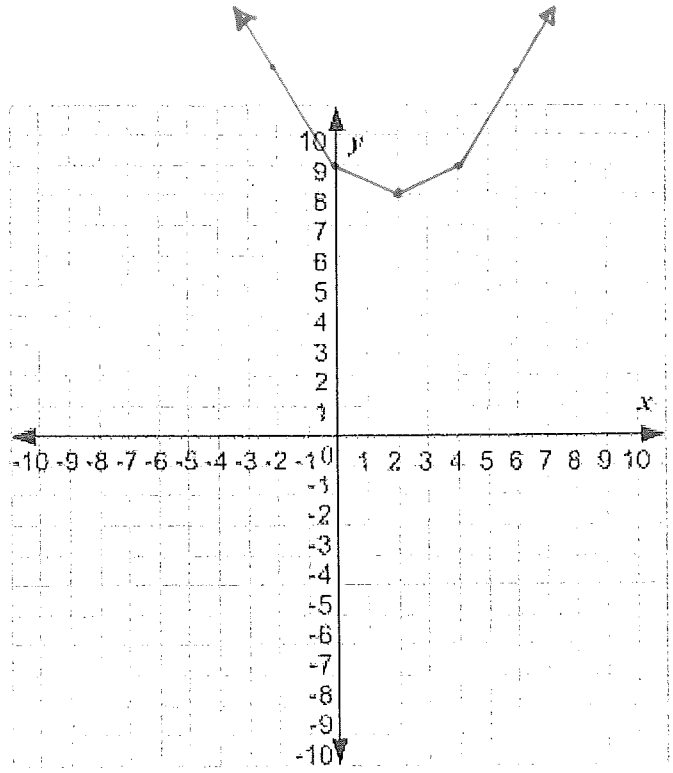
Range: (-∞, 2]

End Behavior:

As x APPROACHES +∞, f(x) APPROACHES -∞.

As x APPROACHES -∞, f(x) APPROACHES -∞.

5.) $y = \frac{1}{4}x^2 - x + 9$



Opens: UP

Axis of Symmetry: X=2

Vertex: (2,8)

Max/Min: MIN

Domian: (-∞, ∞)

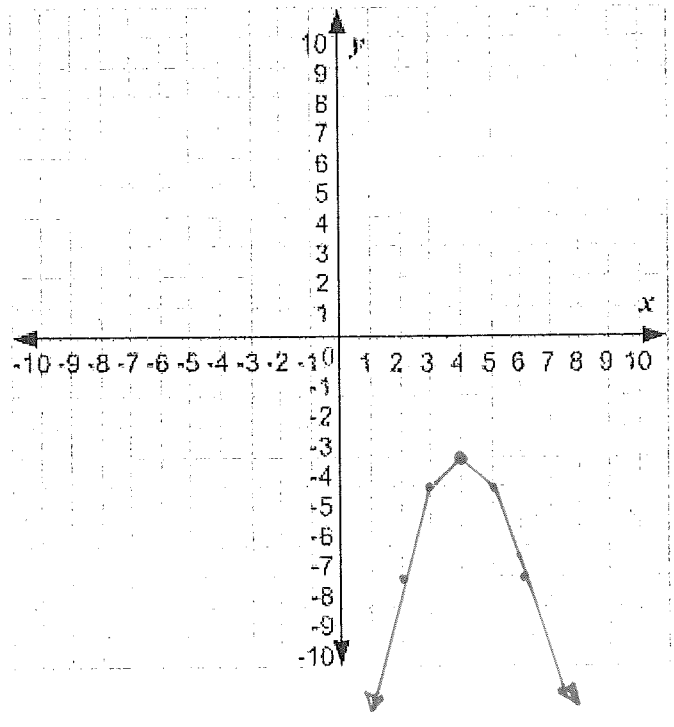
Range: [8, ∞)

End Behavior:

As x APPROACHES +∞, f(x) APPROACHES +∞.

As x APPROACHES -∞, f(x) APPROACHES +∞.

6.) $y = -x^2 + 8x - 20$



Opens: DOWN

Axis of Symmetry: X = 4

Vertex: (4, -4)

Max/Min: MAX

Domian: (-∞, ∞)

Range: (-∞, -4]

End Behavior:

As x APPROACHES +∞, f(x) APPROACHES -∞.

As x APPROACHES -∞, f(x) APPROACHES -∞.