Algebra 2 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Graphing Quadratics – Vertex Form Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_

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

1.)

Opens: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Axis of Symmetry: \_\_\_\_\_\_\_\_\_\_\_\_\_

Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Max/Min: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Domian: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Directrix: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

End Behavior: Latus Rectum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$As x\rightarrow \infty ,f(x)\rightarrow $ \_\_\_\_\_\_\_\_\_\_\_\_ Focus: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$As x\rightarrow -\infty ,f(x)\rightarrow $ \_\_\_\_\_\_\_\_\_\_\_ Directrix: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Graph each quadratic equation. State all the important information



2.) $y=-2\left(x-3\right)^{2}+5$

Opens: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Axis of Symmetry: \_\_\_\_\_\_\_\_\_\_\_\_\_

Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Max/Min: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Domian: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Directrix: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

End Behavior: Latus Rectum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$As x\rightarrow \infty ,f(x)\rightarrow $ \_\_\_\_\_\_\_\_\_\_\_\_ Focus: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$As x\rightarrow -\infty ,f(x)\rightarrow $ \_\_\_\_\_\_\_\_\_\_\_ Directrix: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.) $y=\frac{1}{2}\left(x+2\right)^{2}-3$

Opens: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Axis of Symmetry: \_\_\_\_\_\_\_\_\_\_\_\_\_

Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Max/Min: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Domian: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Directrix: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

End Behavior: Latus Rectum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$As x\rightarrow \infty ,f(x)\rightarrow $ \_\_\_\_\_\_\_\_\_\_\_\_ Focus: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$As x\rightarrow -\infty ,f(x)\rightarrow $ \_\_\_\_\_\_\_\_\_\_\_ Directrix: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



4.) $y=4\left(x-1\right)^{2}-9$

Opens: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Axis of Symmetry: \_\_\_\_\_\_\_\_\_\_\_\_\_

Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Max/Min: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Domian: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Directrix: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

End Behavior: Latus Rectum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$As x\rightarrow \infty ,f(x)\rightarrow $ \_\_\_\_\_\_\_\_\_\_\_\_ Focus: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$As x\rightarrow -\infty ,f(x)\rightarrow $ \_\_\_\_\_\_\_\_\_\_\_ Directrix: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5.) $y=-3\left(x+2\right)^{2}+8$

Opens: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Axis of Symmetry: \_\_\_\_\_\_\_\_\_\_\_\_\_

Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Max/Min: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Domian: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Directrix: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

End Behavior: Latus Rectum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$As x\rightarrow \infty ,f(x)\rightarrow $ \_\_\_\_\_\_\_\_\_\_\_\_ Focus: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$As x\rightarrow -\infty ,f(x)\rightarrow $ \_\_\_\_\_\_\_\_\_\_\_ Directrix: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



6.) $y=-\frac{1}{3}x^{2}+2x-7$

Opens: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Axis of Symmetry: \_\_\_\_\_\_\_\_\_\_\_\_\_

Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Max/Min: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Domian: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Directrix: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

End Behavior: Latus Rectum: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$As x\rightarrow \infty ,f(x)\rightarrow $ \_\_\_\_\_\_\_\_\_\_\_\_ Focus: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

$As x\rightarrow -\infty ,f(x)\rightarrow $ \_\_\_\_\_\_\_\_\_\_\_ Directrix: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_