

Student Name:

Graphing Parabolas Assignment

For the following quadratic functions, give the following information:

- Does the parabola “open up” or “open down”?
- Give the Vertex.
- Give the equation of the axis of symmetry.
- Sketch the graph. - You may use Desmos to sketch the graphs.

1. $f(x) = x^2 + 6x + 2$

Sketch

Opens:

Vertex:

Equation for Axis of
Symmetry:

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2. $f(x) = 2 - 5x + 2x^2$

Sketch:

Opens:

Vertex:

Equation for Axis of Symmetry:

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3. $f(x) = -0.25x^2 + 8x - 2$

Sketch:

Opens:

Vertex:

Equation for Axis of Symmetry:

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4. $f(x) = 4x^2 + 3x - 5$

Sketch:

Opens:

Vertex:

Equation for Axis of Symmetry: