

SM 2

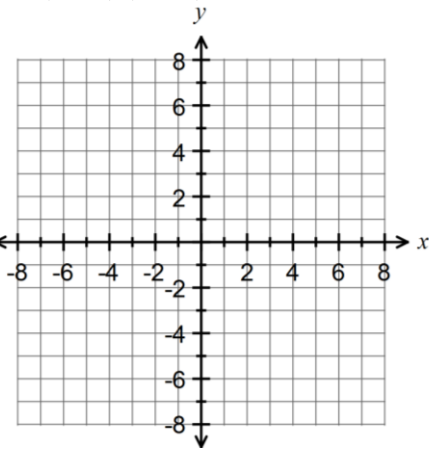
Name: _____ Period: _____

SM2 7.1-7.4 Review of Quadratic Forms and Graphing

For each function, do the following: 1) state whether the function is in **standard**, **vertex**, or **factored** form, 2) state whether the parabola opens **up** or **down**, 3) state if the vertex is a **maximum** or **minimum**, 4) find the **vertex**, 5) state the **axis of symmetry**, 6) find the **zeros** (x -values), 7) state the **x -intercepts** as ordered pairs, 8) state the **y -intercept** as ordered pair, 9) **graph** the quadratic function using at least 5 points.

1. $y = -(x+1)(x-3)$

x	$f(x)$

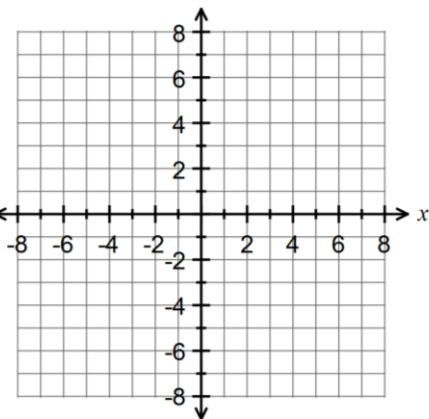


- 1) Form of equation: _____
- 2) Direction of Opening: _____
- 3) Is the vertex a maximum or a minimum? _____
- 4) Vertex: _____
- 5) Axis of Symmetry: _____
- 6) Zeros: _____
- 7) x -intercepts: _____
- 8) y -intercept: _____

Show work here:

2. $f(x) = -(x+3)^2 + 1$

x	$f(x)$

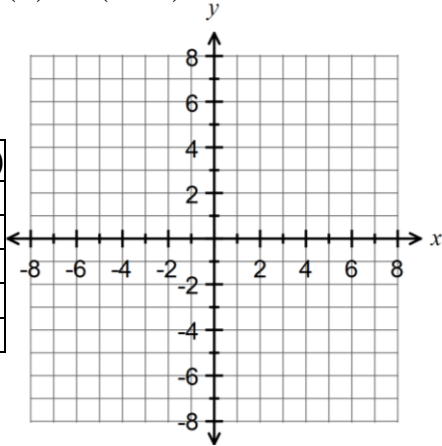


- 1) Form of equation: _____
- 2) Direction of Opening: _____
- 3) Is the vertex a maximum or a minimum? _____
- 4) Vertex: _____
- 5) Axis of Symmetry: _____
- 6) Zeros: _____
- 7) x -intercepts: _____
- 8) y -intercept: _____

Show work here:

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

x	$f(x)$

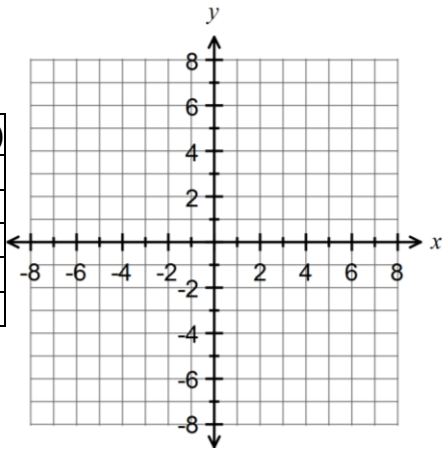


- 1) Form of equation: _____
- 2) Direction of Opening: _____
- 3) Is the vertex a maximum or a minimum? _____
- 4) Vertex: _____
- 5) Axis of Symmetry: _____
- 6) Zeros: _____
- 7) x-intercepts: _____
- 8) y-intercept: _____

Show work here:

4. $y = x^2 - 2x + 5$

x	$f(x)$

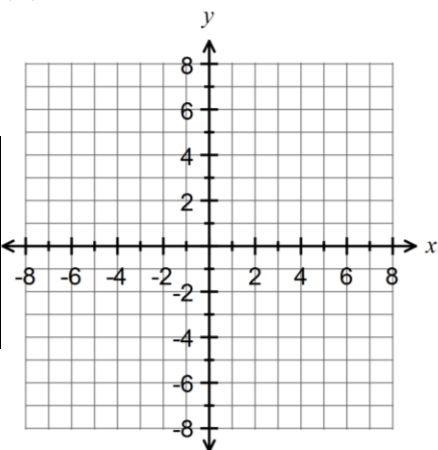


- 1) Form of equation: _____
- 2) Direction of Opening: _____
- 3) Is the vertex a maximum or a minimum? _____
- 4) Vertex: _____
- 5) Axis of Symmetry: _____
- 6) Zeros: _____
- 7) x-intercepts: _____
- 8) y-intercept: _____

Show work here:

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

x	$f(x)$

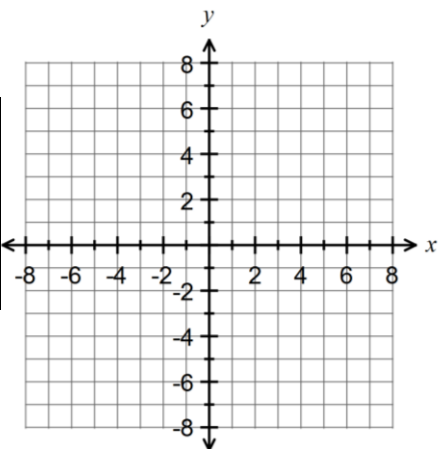


- 1) Form of equation: _____
- 2) Direction of Opening: _____
- 3) Is the vertex a maximum or a minimum? _____
- 4) Vertex: _____
- 5) Axis of Symmetry: _____
- 6) Zeros: _____
- 7) x-intercepts: _____
- 8) y-intercept: _____

Show work here:

6. $y = x^2 - 8x + 15$

x	$f(x)$



- 1) Form of equation: _____
- 2) Direction of Opening: _____
- 3) Is the vertex a maximum or a minimum? _____
- 4) Vertex: _____
- 5) Axis of Symmetry: _____
- 6) Zeros: _____
- 7) x-intercepts: _____
- 8) y-intercept: _____

Show work here: