

Date _____

Name _____

Graphing Quadratic Functions in Vertex Form

Graph each function clearly indicating 5 points. Then describe the characteristics of the function by filling in the blanks. NO CALCULATORS!!!

1. $y = 2(x - 1)^2 + 2$

Axis of symmetry:

Vertex:

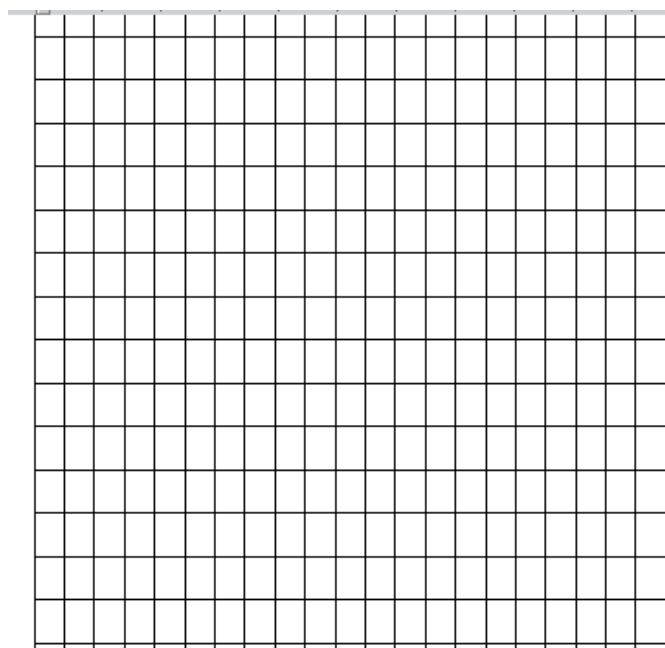
Domain:

Range:

Direction of opening:

Max/Min:

Number of roots:



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

Axis of symmetry:

Vertex:

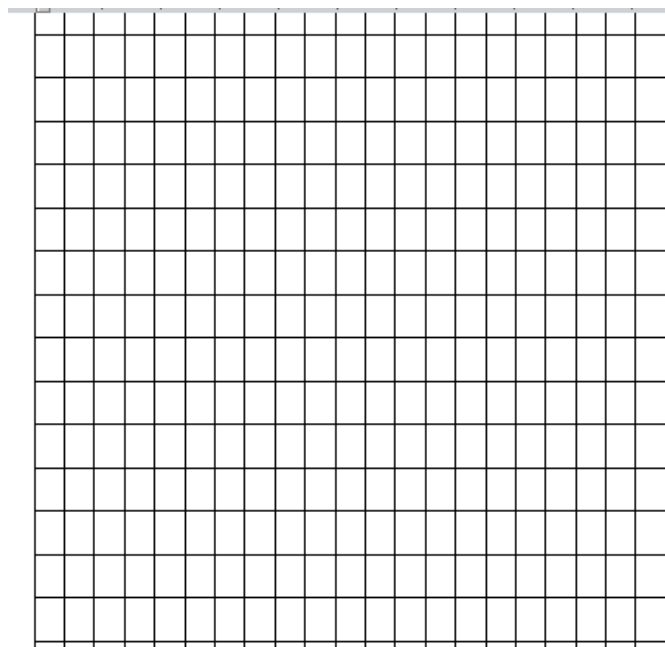
Domain:

Range:

Direction of opening:

Max/Min:

Number of roots:



3. $y = -(x - 2)^2$

Axis of symmetry:

Vertex:

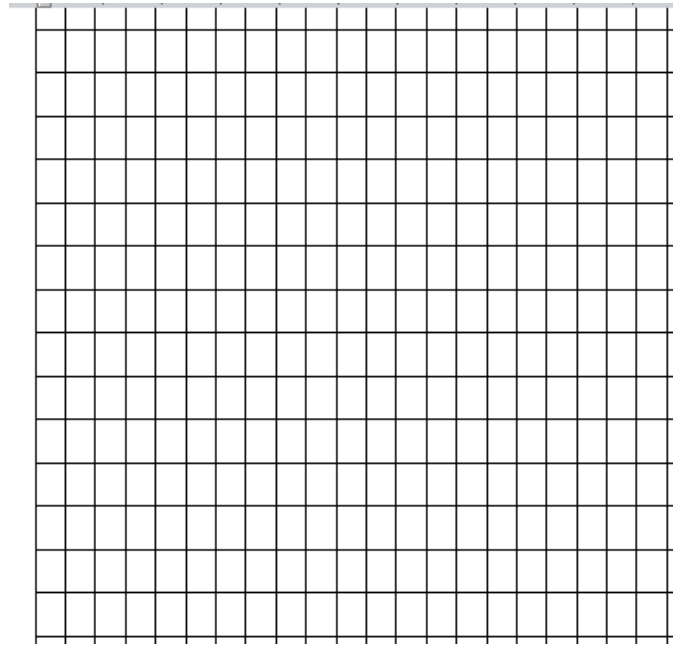
Domain:

Range:

Direction of opening:

Max/Min:

Number of roots:



4. $y = 2x^2 - 8$

Axis of symmetry:

Vertex:

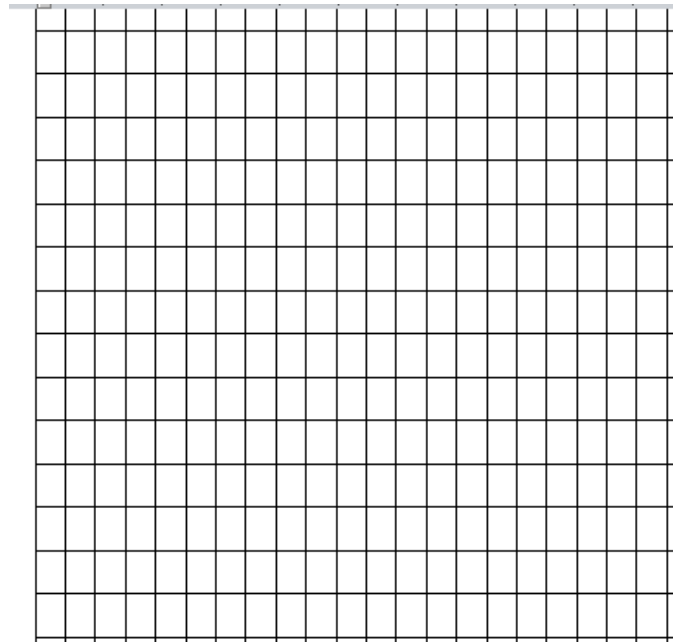
Domain:

Range:

Direction of opening:

Max/Min:

Number of roots:



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

Axis of symmetry:

Vertex:

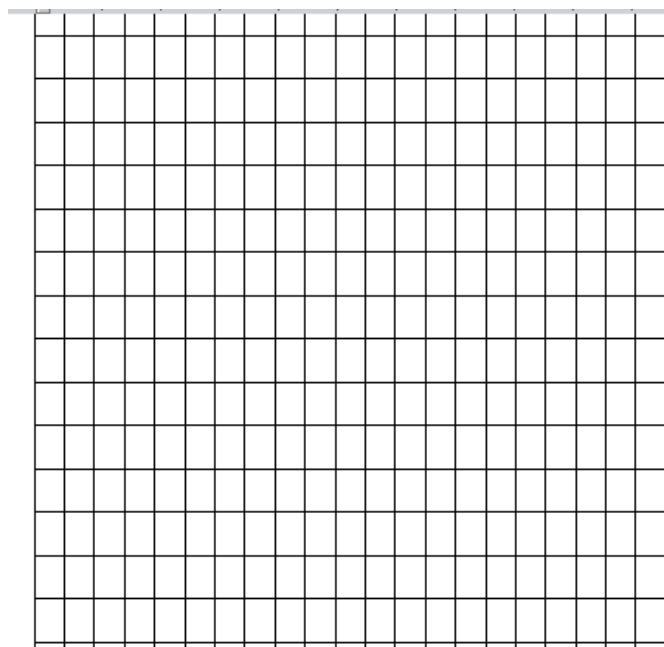
Domain:

Range:

Direction of opening:

Max/Min:

Number of roots:



6. $y = -(x - 1)^2 - 3$

Axis of symmetry:

Vertex:

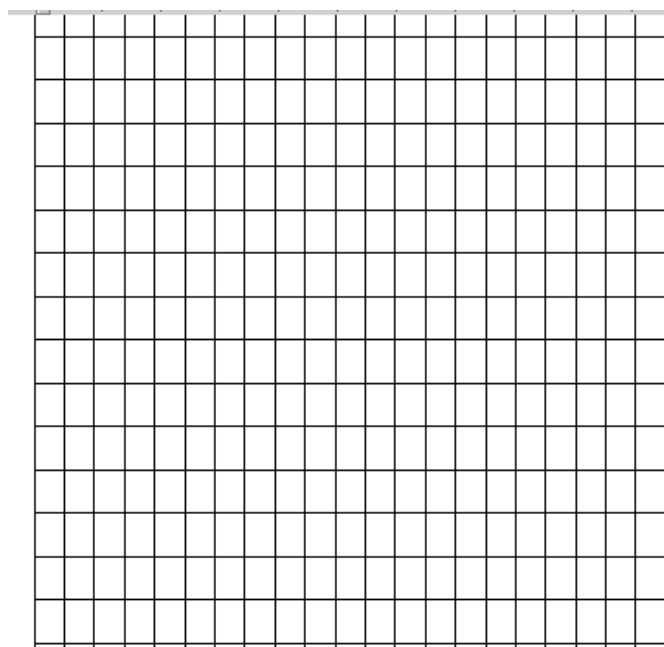
Domain:

Range:

Direction of opening:

Max/Min:

Number of roots:



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

Axis of symmetry:

Vertex:

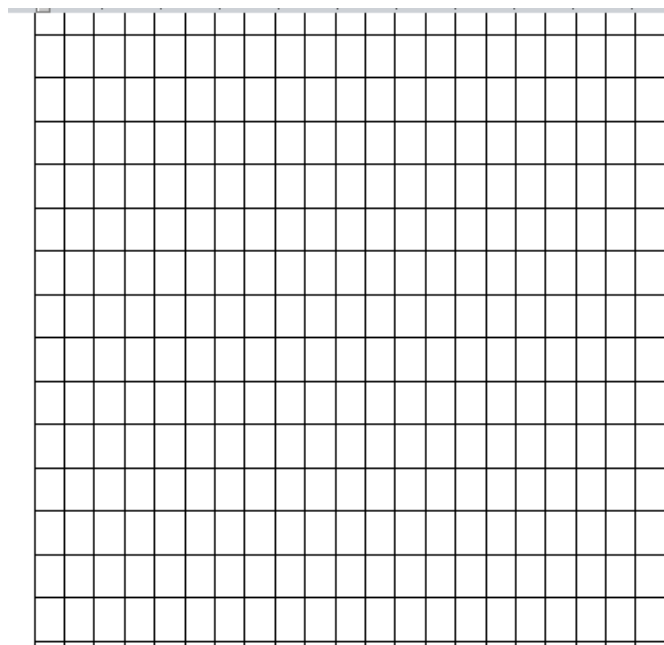
Domain:

Range:

Direction of opening:

Max/Min:

Number of roots:



8. $y = -(x + 1)^2 + 4$

Axis of symmetry:

Vertex:

Domain:

Range:

Direction of opening:

Max/Min:

Number of roots:

