

EXTRA PRACTICE — Exercises

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Unit IX – The Conic Sections

Part A – Parabolas - The Quadratic Function

Lesson 3 – Parabolas, $y = (x-h)^2$

Graph the solution set for each of the following second degree equations. In addition, identify the vertex and the axis of symmetry, and note whether the graph opens up or down.

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

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

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

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

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

EXTRA PRACTICE — Answer Key

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Unit IX – The Conic Sections

Part A – Parabolas - The Quadratic Function

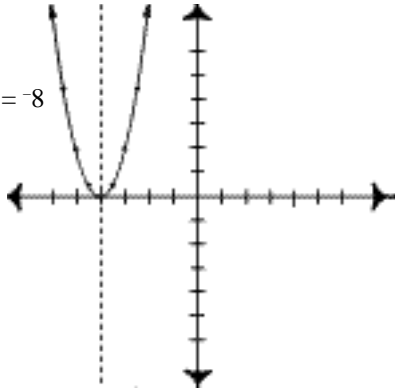
Lesson 3 – Parabolas, $y = (x-h)^2$

Graph the solution set for each of the following second degree equations. In addition, identify the vertex and the axis of symmetry, and note whether the graph opens up or down.

1. vertex: $(-8,0)$

Axis of Symmetry: $x = -8$

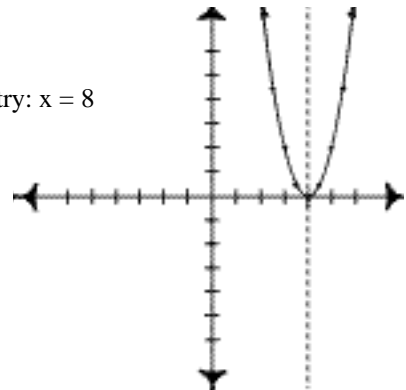
Opens Up



2. vertex: $(8,0)$

Axis of Symmetry: $x = 8$

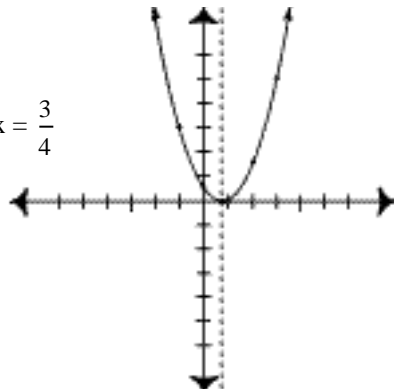
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3. vertex: $\frac{3}{4}, 0$

Axis of Symmetry: $x = \frac{3}{4}$

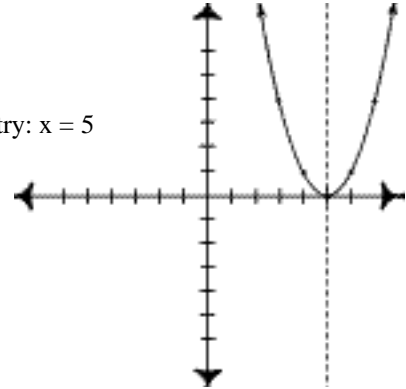
Opens Up



4. vertex: $(5,0)$

Axis of Symmetry: $x = 5$

Opens Up



5. vertex: $-\frac{5}{2}, 0$

Axis of Symmetry: $x = -2\frac{1}{2}$

Opens Up

