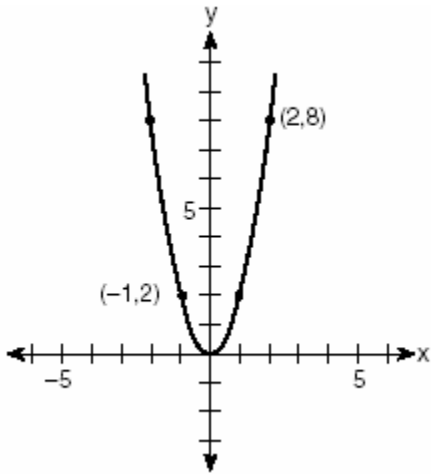
Lesson 10-1: Exploring Quadratic Graphs

Part 1: Graphing $y=ax^2$

1. 060404b, P.I. A.G.4
Which quadratic function is shown in the accompanying graph?



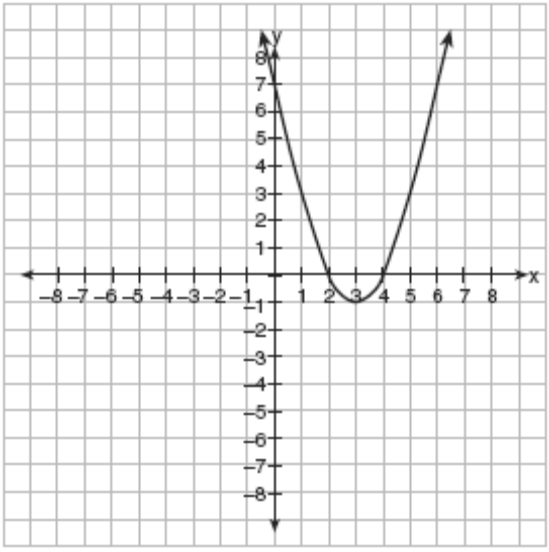
[A] $y=\frac{1}{2}x^2$ [B] $y=-\frac{1}{2}x^2$

[C] $y=2x^2$ [D] $y=-2x^2$

2. 080611b
What is the total number of points of intersection for the graphs of the equations $y=x^2$ and $y=-x^2$?

[A] 3 [B] 0 [C] 1 [D] 2

3. 010606b, P.I. A.G.10
Which is an equation of the line of symmetry for the parabola in the accompanying diagram?



[A] $x = 4$ [B] $y = 3$

[C] $x = 3$ [D] $x = 2$

4. 060514b, P.I. A.A.41
For which quadratic equation is the axis of symmetry $x = 3$?

[A] $y=-x^2+3x+5$ [B] $y=-x^2+6x+2$

[C] $y=x^2+x+3$ [D] $y=x^2+6x+3$

Part 2: Graphing $y=ax^2+c$

5. 060706b
What is one solution of the accompanying system of equations?

$$y=-x^2+5$$
$$y=-0.5x^2+3$$

[A] (0,5) [B] (0,3)

[C] (-2,1) [D] (3,5)

[1] C

[2] C

[3] C

[4] B

[5] C