Name _____ Date _____

LESSON 4.1

# Practice B

*For use with pages 236–244*

**Graph the Quadratic Equation in Standard Form:** $y = ax^2 + bx + c$

I. Find the *x*-coordinate of the vertex with $\frac{-b}{2a}$

II. Substitute that value back into the original equation to find the *y*-coordinate of the vertex.

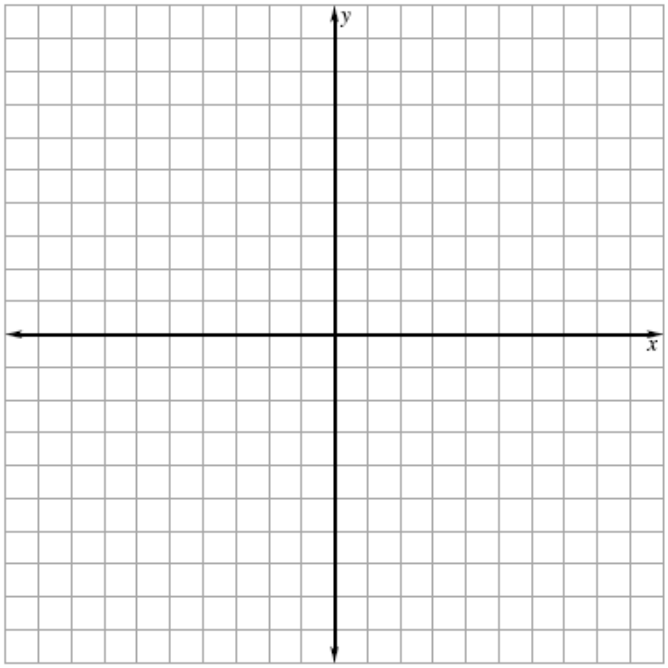
III. If $a = 1$ , then follow the pattern

IV. If $a \neq 1$ , then change the pattern.

V. Graph the y-intercept to help.

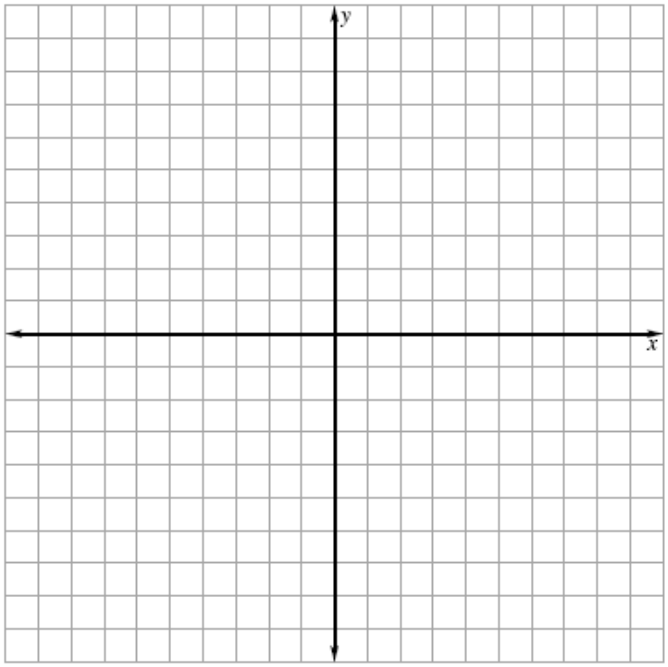
**#1** $y = x^2 - 2$

$\frac{-b}{2a} =$



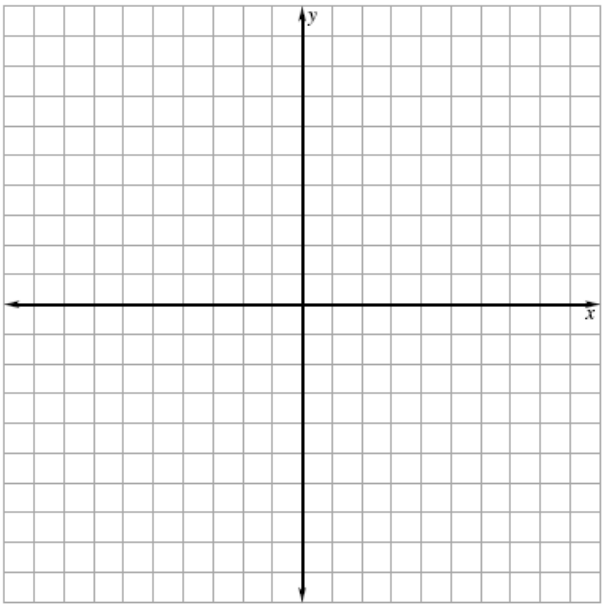

**#2** $y = x^2 + 3$

$\frac{-b}{2a} =$



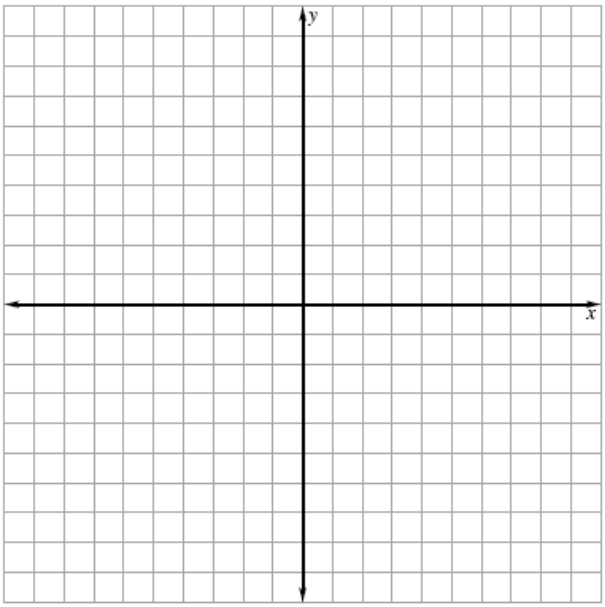
**#3** $y = -x^2 + 5$

$\frac{-b}{2a} =$



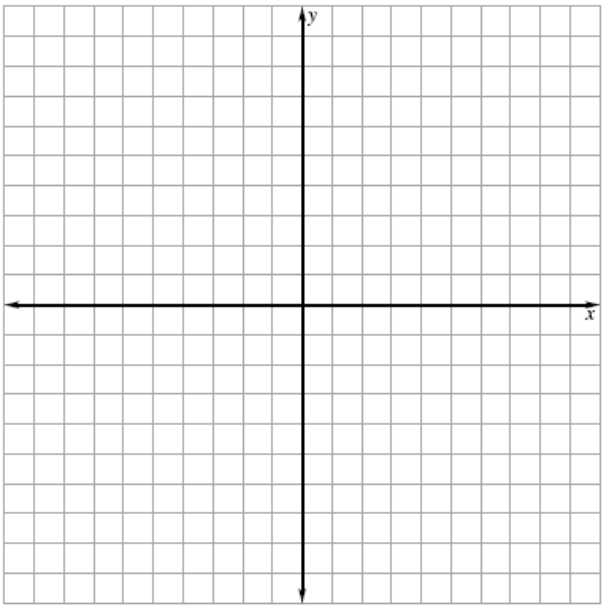

**#4** $y = x^2 + 4x$

$\frac{-b}{2a} =$



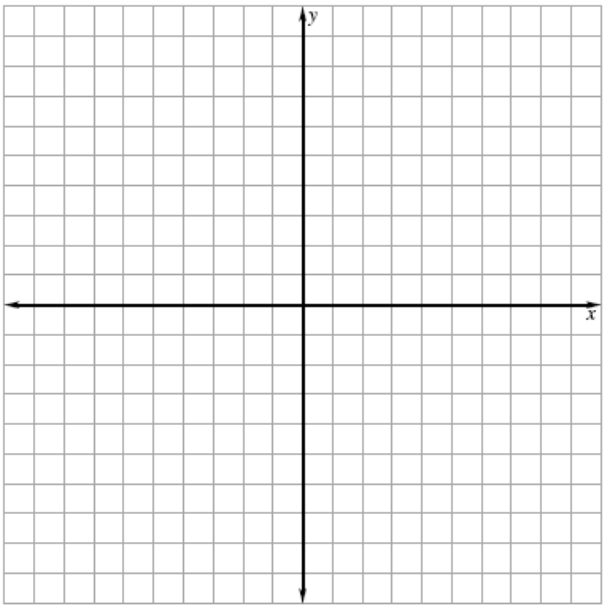

**#5** $y = x^2 - 2x$

$\frac{-b}{2a} =$



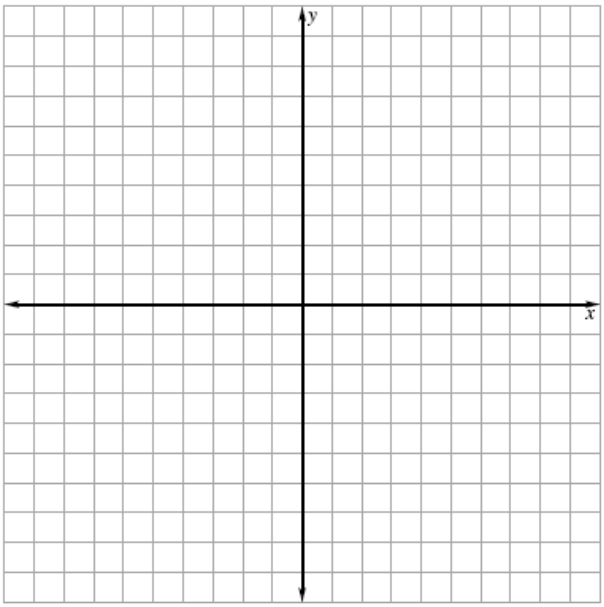

**#6** $y = -x^2 - 6x$

$\frac{-b}{2a} =$



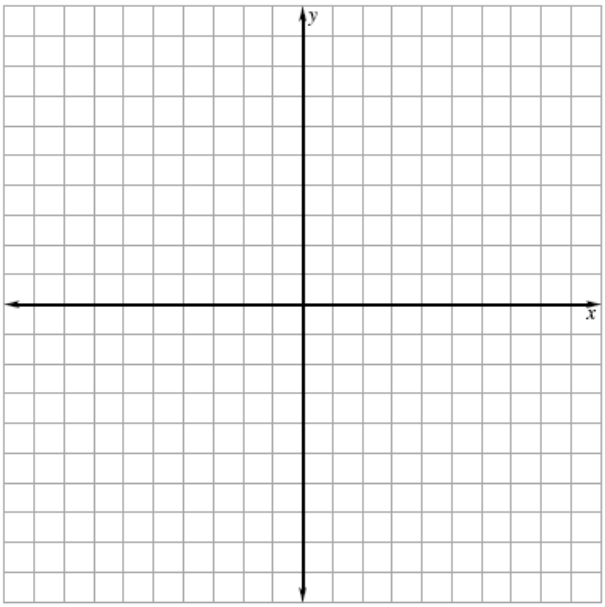
**#7** $y = x^2 - 4x + 2$

$\frac{-b}{2a} =$



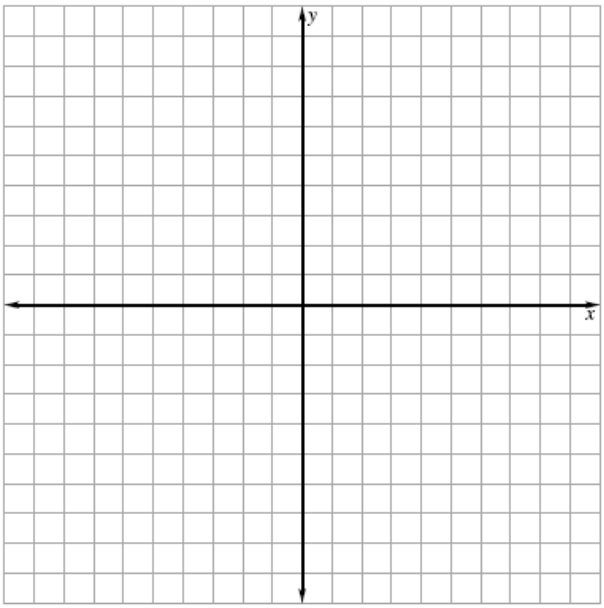

**#8** $y = x^2 + 8x + 10$

$\frac{-b}{2a} =$



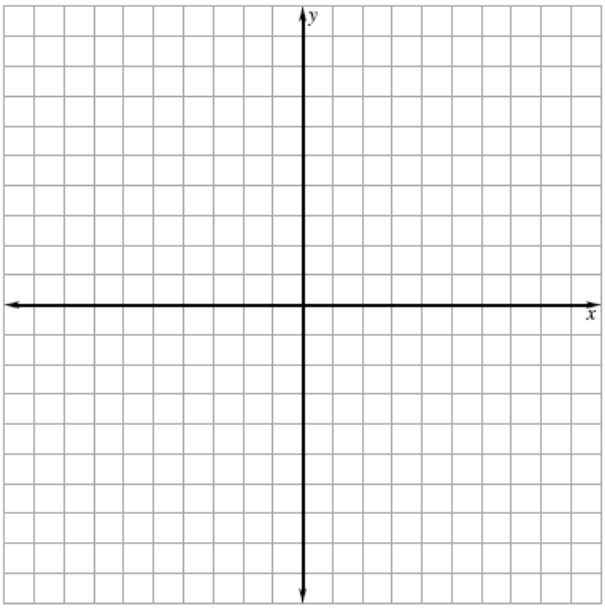

**#9** $y = -x^2 - 10x - 22$

$\frac{-b}{2a} =$



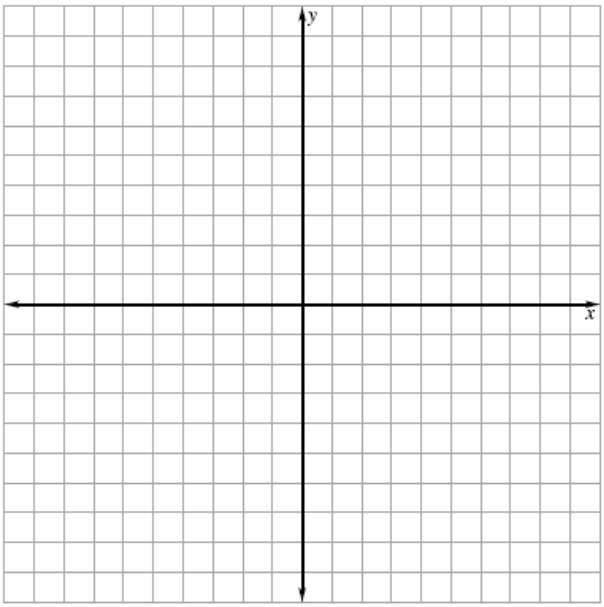

**#10** $y = -x^2 - 2x + 5$

$\frac{-b}{2a} =$



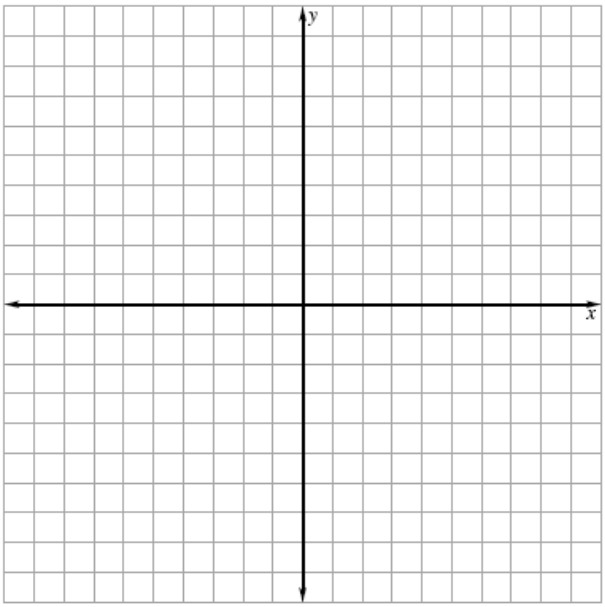
**#11** $y = 2x^2 + 4x + 2$

$\frac{-b}{2a} =$



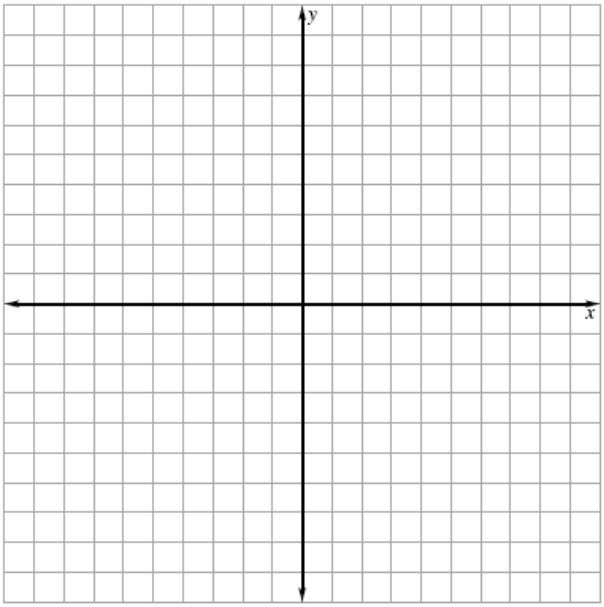

**#12** $y = -2x^2 + 12x - 10$

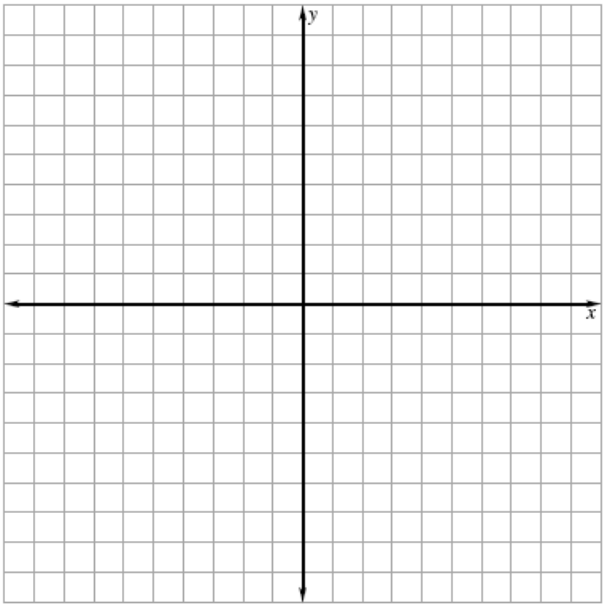
$\frac{-b}{2a} =$




**#13** $y = \frac{1}{2}x^2 - 2x - 2$

$\frac{-b}{2a} =$




**#14** $y = -\frac{1}{4}x^2 - 1x + 2$

$\frac{-b}{2a} =$