

SECTION 5-4 QUIZ A

Complete the square for the expression. Also, identify the resulting expression as a binomial squared.

$$x^2 + 11x + \blacksquare$$

- $x^2 + 11x + \left(-\frac{121}{4}\right) = \left(x - \frac{11}{2}\right)^2$
- $x^2 + 11x + \frac{121}{4} = \left(x + \frac{11}{2}\right)^2$
- $x^2 + 11x + \frac{121}{2} = \left(x + \frac{11}{2}\right)^2$
- $x^2 + 11x + \left(-\frac{121}{2}\right) = \left(x - \frac{11}{2}\right)^2$
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Solve the equation.

$$x^2 - 4x + 4 = 3$$

- $x = -2 \pm \sqrt{3}$
- $x = 2 \pm \sqrt{3}$
- $x = -4 \pm \sqrt{3}$
- $x = 4 \pm \sqrt{3}$

Solve the equation.

$$x^2 + 12 = 10x$$

- $x = -6 \pm \sqrt{26}$
 - $x = 6 \pm \sqrt{26}$
 - $x = -5 \pm \sqrt{13}$
 - $x = 5 \pm \sqrt{13}$
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Which of the following represents the function $f(x) = x^2 - 14x - 1$ in vertex form?
Identify its vertex.

- $f(x) = (x - 7)^2 - 48; (7, -48)$
 - $f(x) = (x + 7)^2 + 48; (-7, 48)$
 - $f(x) = (x-7)^2 - 50; (7, -50)$
 - $f(x) = (x + 7)^2 + 50; (-7, 50)$
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*****EXTRA CREDIT*****

Which of the following represents the function $g(x) = 3x^2 + 18x + 5$ in vertex form? Identify its vertex.

- $g(x) = (x - 3)^2 - 22; (3, -22)$
 - $g(x) = 3(x + 3)^2 - 22; (-3, -22)$
 - $g(x) = (x - 3)^2 + 32; (3, 32)$
 - $g(x) = 3(x + 3)^2 + 32; (-3, 32)$
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