

Section 4.3 Extra Practice

- What value of k makes each expression a perfect square?
 - $x^2 + 12x + k$
 - $x^2 - 20x + k$
 - $x^2 - 7x + k$
 - $x^2 + \frac{4}{5}x + k$
- Complete the square to write each quadratic equation in the form $(x + a)^2 = b$.
 - $x^2 + 6x + 4 = 0$
 - $2x^2 - 16x + 10 = 0$
 - $-3x^2 + 15x - 2 = 0$
 - $\frac{1}{2}x^2 + 5x - 4 = 0$
- Solve each quadratic equation, to the nearest tenth.
 - $(x - 4)^2 = 25$
 - $\left(x + \frac{1}{2}\right)^2 = \frac{1}{4}$
 - $(x - 0.1)^2 = 0.64$
 - $4(x + 7)^2 = 1$
- Solve each quadratic equation. Express answers as exact roots in simplest form.
 - $x^2 + 2x - 2 = 0$
 - $x^2 - 5x + 3 = 0$
 - $x^2 + 0.6x - 0.16 = 0$
 - $x^2 - \frac{6}{7}x + \frac{9}{49} = 0$
- Solve each quadratic equation by completing the square. Express answers in simplest radical form.
 - $4x^2 + x - 3 = 0$
 - $-3x^2 - 6x + 1 = 0$
 - $\frac{1}{4}x^2 + x - 5 = 0$
 - $-0.1x^2 + 0.6x - 0.5 = 0$
- Solve each quadratic equation by completing the square. Express answers to the nearest hundredth.
 - $-2x^2 + 9x + 2 = 0$
 - $3x^2 - 3x - 1 = 0$
 - $\frac{1}{5}x^2 + 2x + 1 = 0$
 - $6x^2 + 3x - 2 = 0$
- Two numbers have a sum of 22. What are the numbers if their product is 96?

