

## Solving Quadratic Equations

Date \_\_\_\_\_ Period \_\_\_\_\_

**Solve each equation by factoring.**

1)  $b^2 + 6b + 8 = 0$

2)  $p^2 + 10p + 16 = 0$

3)  $x^2 - 9x + 18 = 0$

4)  $n^2 + 3n = 0$

5)  $a^2 + a = 0$

6)  $a^2 + a - 56 = 0$

7)  $p^2 - 4p + 3 = 0$

8)  $m^2 - 5m + 4 = 0$

$$9) p^2 + 2p - 48 = 0$$

$$10) x^2 + 8x + 12 = 0$$

**Solve each equation by completing the square.**

$$11) x^2 + 12x + 11 = 0$$

$$12) p^2 + 16p - 17 = 0$$

$$13) 7a^2 + 14a - 56 = 0$$

$$14) 2v^2 + 20v - 98 = 0$$

$$15) 4k^2 + 8k - 5 = 0$$

## Answers to Solving Quadratic Equations

- |                 |  |   |                  |
|-----------------|--|---|------------------|
| 1) $\{-2, -4\}$ | 2) $\{-2, -8\}$                          | 3) $\{3, 6\}$                                   | 4) $\{-3, 0\}$   |
| 5) $\{-1, 0\}$  | 6) $\{-8, 7\}$                           | 7) $\{1, 3\}$                                   | 8) $\{1, 4\}$    |
| 9) $\{6, -8\}$  | 10) $\{-2, -6\}$                         | 11) $\{-1, -11\}$                               | 12) $\{1, -17\}$ |
| 13) $\{2, -4\}$ | 14) $\{-5 + \sqrt{74}, -5 - \sqrt{74}\}$ | 15) $\left\{\frac{1}{2}, -2\frac{1}{2}\right\}$ |                  |