

## Solving Quadratic Equations by Factoring

Solve each equation by factoring.

1)  $(k + 1)(k - 5) = 0$

2)  $(a + 1)(a + 2) = 0$

3)  $(4k + 5)(k + 1) = 0$

4)  $(2m + 3)(4m + 3) = 0$

5)  $x^2 - 11x + 19 = -5$

6)  $n^2 + 7n + 15 = 5$

7)  $n^2 - 10n + 22 = -2$

8)  $n^2 + 3n - 12 = 6$

9)  $6n^2 - 18n - 18 = 6$

10)  $7r^2 - 14r = -7$

$$11) n^2 + 8n = -15$$

$$12) 5r^2 - 44r + 120 = -30 + 11r$$

$$13) -4k^2 - 8k - 3 = -3 - 5k^2$$

$$14) b^2 + 5b - 35 = 3b$$

$$15) 3r^2 - 16r - 7 = 5$$

$$16) 6b^2 - 13b + 3 = -3$$

$$17) 7k^2 - 6k + 3 = 3$$

$$18) 35k^2 - 22k + 7 = 4$$

$$19) 7x^2 + 2x = 0$$

$$20) 10b^2 = 27b - 18$$

$$21) 8x^2 + 21 = -59x$$

$$22) 15a^2 - 3a = 3 - 7a$$

## Solving Quadratic Equations by Factoring

Solve each equation by factoring.

1)  $(k + 1)(k - 5) = 0$

$\{-1, 5\}$

2)  $(a + 1)(a + 2) = 0$

$\{-1, -2\}$

3)  $(4k + 5)(k + 1) = 0$

$\left\{-\frac{5}{4}, -1\right\}$

4)  $(2m + 3)(4m + 3) = 0$

$\left\{-\frac{3}{2}, -\frac{3}{4}\right\}$

5)  $x^2 - 11x + 19 = -5$

$\{3, 8\}$

6)  $n^2 + 7n + 15 = 5$

$\{-5, -2\}$

7)  $n^2 - 10n + 22 = -2$

$\{6, 4\}$

8)  $n^2 + 3n - 12 = 6$

$\{3, -6\}$

9)  $6n^2 - 18n - 18 = 6$

$\{4, -1\}$

10)  $7r^2 - 14r = -7$

$\{1\}$

11)  $n^2 + 8n = -15$

$\{-5, -3\}$

12)  $5r^2 - 44r + 120 = -30 + 11r$

$\{6, 5\}$

13)  $-4k^2 - 8k - 3 = -3 - 5k^2$

$\{8, 0\}$

14)  $b^2 + 5b - 35 = 3b$

$\{-7, 5\}$

15)  $3r^2 - 16r - 7 = 5$

$\left\{-\frac{2}{3}, 6\right\}$

16)  $6b^2 - 13b + 3 = -3$

$\left\{\frac{2}{3}, \frac{3}{2}\right\}$

17)  $7k^2 - 6k + 3 = 3$

$\left\{\frac{6}{7}, 0\right\}$

18)  $35k^2 - 22k + 7 = 4$

$\left\{\frac{1}{5}, \frac{3}{7}\right\}$

19)  $7x^2 + 2x = 0$

$\left\{-\frac{2}{7}, 0\right\}$

20)  $10b^2 = 27b - 18$

$\left\{\frac{6}{5}, \frac{3}{2}\right\}$

21)  $8x^2 + 21 = -59x$

$\left\{-\frac{3}{8}, -7\right\}$

22)  $15a^2 - 3a = 3 - 7a$   $\left\{\frac{1}{3}, -\frac{3}{5}\right\}$