

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

$\{1\}$

$$11) n^2 + 8n = -15$$
$$\{-5, -3\}$$

$$12) 5r^2 - 44r + 120 = -30 + 11r$$
$$\{6, 5\}$$

$$13) -4k^2 - 8k - 3 = -3 - 5k^2$$
$$\{8, 0\}$$

$$14) b^2 + 5b - 35 = 3b$$
$$\{-7, 5\}$$

$$15) 3r^2 - 16r - 7 = 5$$
$$\left\{-\frac{2}{3}, 6\right\}$$

$$16) 6b^2 - 13b + 3 = -3$$
$$\left\{\frac{2}{3}, \frac{3}{2}\right\}$$

$$17) 7k^2 - 6k + 3 = 3$$
$$\left\{\frac{6}{7}, 0\right\}$$

$$18) 35k^2 - 22k + 7 = 4$$
$$\left\{\frac{1}{5}, \frac{3}{7}\right\}$$

$$19) 7x^2 + 2x = 0$$
$$\left\{-\frac{2}{7}, 0\right\}$$

$$20) 10b^2 = 27b - 18$$
$$\left\{\frac{6}{5}, \frac{3}{2}\right\}$$

$$21) 8x^2 + 21 = -59x$$
$$\left\{-\frac{3}{8}, -7\right\}$$

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