Elementary Algebra Skill

Solving Quadratic Equations by Factoring

Solve each equation by factoring.

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

2) $x^2 + 5x + 4 = 0$

3) $n^2 - 64 = 0$

4) $b^2 + 5b = 0$

5) $35n^2 + 22n + 3 = 0$

6) $15b^2 + 4b - 4 = 0$

7) $7p^2 - 38p - 24 = 0$

8) $3x^2 + 14x - 49 = 0$

9) $3k^2 - 18k - 21 = 0$

10) $6k^2 - 42k + 72 = 0$

11) $x^2 = 11x - 28$

12) $k^2 + 15k = -56$

13) $3m^2 = -16m - 21$

14) $8x^2 = 30 + 43x$

15) $x^2 + 17x + 49 = 3x$

16) $m^2 = 2m$

17) $2k^2 - 14 = -3k$

18) $3v^2 + 36v + 49 = 8v$

19) $10x^2 - 26x = -12$

20) $15p^2 + 80 = -80p$

Answers to Solving Quadratic Equations by Factoring

1) $\{3, 6\}$

2) $\{-1, -4\}$

3) $\{8, -8\}$

4) $\{-5, 0\}$

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

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

7) $\left\{-\frac{4}{7}, 6\right\}$

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

9) $\{7, -1\}$

10) $\{3, 4\}$

11) $\{7, 4\}$

12) $\{-8, -7\}$

13) $\left\{-\frac{7}{3}, -3\right\}$

14) $\left\{-\frac{5}{8}, 6\right\}$

15) $\{-7\}$

16) $\{2, 0\}$

17) $\left\{-\frac{7}{2}, 2\right\}$

18) $\left\{-\frac{7}{3}, -7\right\}$

19) $\left\{\frac{3}{5}, 2\right\}$

20) $\left\{-\frac{4}{3}, -4\right\}$