

14-05-13-T8

Solve each equation by completing the square.

1) $5n^2 + 10n - 15 = 0$

2) $2x^2 + 4x - 16 = 0$

3) $2a^2 - 8a - 20 = 0$

4) $3x^2 + 6x - 24 = 0$

5) $3n^2 - 6n - 6 = 0$

6) $4p^2 + 8p = 24$

7) $4n^2 - 8n = 11$

8) $5n^2 - 10n = 4$

9) $4k^2 = 8k + 21$

10) $4x^2 = 5 - 8x$

Answers to 14-05-13-T8

1) $\{1, -3\}$

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

3) $\{2 + \sqrt{14}, 2 - \sqrt{14}\}$

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

5) $\{1 + \sqrt{3}, 1 - \sqrt{3}\}$

6) $\{-1 + \sqrt{7}, -1 - \sqrt{7}\}$

7) $\left\{\frac{2 + \sqrt{15}}{2}, \frac{2 - \sqrt{15}}{2}\right\}$

8) $\left\{\frac{5 + 3\sqrt{5}}{5}, \frac{5 - 3\sqrt{5}}{5}\right\}$

9) $\left\{\frac{7}{2}, -\frac{3}{2}\right\}$

10) $\left\{\frac{1}{2}, -\frac{5}{2}\right\}$