

Intermediate Algebra Skills

Solving quadratic equations by Completing the Square.

Solve:

1) $x^2 + 6x = 7$

2) $x^2 - 10x = 22$

3) $x^2 + 6x + 5 = 0$

4) $x^2 - 10x + 21 = 0$

5) $x^2 + 4x + 1 = 0$

6) $x^2 + 4 = 6x$

7) $x^2 + 6x + 13 = 0$

8) $2x^2 - 5x - 3 = 0$

9) $4y^2 + 8y + 3 = 0$

10) $6z^2 - z = 15$

11) $2y^2 + 4y + 1 = 0$

12) $3x^2 - 5x - 3 = 0$

Answers to Solving quadratic equations by Completing the Square.

1) $-7, 1$

2) $5 \pm \sqrt{47}$

3) $-5, -1$

4) $3, 7$

5) $-2 \pm \sqrt{3}$

6) $3 \pm \sqrt{5}$

7) $-3 \pm 2i$

8) $-\frac{1}{2}, 3$

9) $-\frac{3}{2}, -\frac{1}{2}$

10) $-\frac{3}{2}, \frac{5}{3}$

11) $\frac{-2 \pm \sqrt{2}}{2}$

12) $\frac{5 \pm \sqrt{61}}{6}$