

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