Solving Quadratic Equations (A)

Solve each equation for x

1. $x^2 - 4x - 1 = 4$

2. $x^2 - 8x - 4 = 5$

3. $x^2 - 3x = -2$

4. $x^2 + 4x + 3 = 0$

5. $x^2 + x - 70 = 2$

6. $x^2 + 9x = -8$

7. $x^2 + 6x - 15 = 12$

8. $x^2 - 2x - 35 = 28$

9. $x^2 + 4x - 25 = 7$

10. $x^2 - 15x + 3 = -51$

11. $x^2 + 5x - 10 = 14$

12. $x^2 - 6 = 43$

Solving Quadratic Equations (A) Answers

Solve each equation for x

1. $x^2 - 4x - 1 = 4$
   $x^2 - 4x - 5 = 0$
   $(x - 5)(x + 1) = 0$
   $x = 5 \ , \ -1$

2. $x^2 - 8x - 4 = 5$
   $x^2 - 8x - 9 = 0$
   $(x - 9)(x + 1) = 0$
   $x = 9 \ , \ -1$

3. $x^2 - 3x = -2$
   $x^2 - 3x + 2 = 0$
   $(x - 1)(x - 2) = 0$
   $x = 1 \ , \ 2$

4. $x^2 + 4x + 3 = 0$
   $x^2 + 4x + 3 = 0$
   $(x + 3)(x + 1) = 0$
   $x = -3 \ , \ -1$

5. $x^2 + x - 70 = 2$
   $x^2 + x - 72 = 0$
   $(x + 9)(x - 8) = 0$
   $x = -9 \ , \ 8$

6. $x^2 + 9x = -8$
   $x^2 + 9x + 8 = 0$
   $(x + 1)(x + 8) = 0$
   $x = -1 \ , \ -8$

7. $x^2 + 6x - 15 = 12$
   $x^2 + 6x - 27 = 0$
   $(x - 3)(x + 9) = 0$
   $x = 3 \ , \ -9$

8. $x^2 - 2x - 35 = 28$
   $x^2 - 2x - 63 = 0$
   $(x - 9)(x + 7) = 0$
   $x = 9 \ , \ -7$

9. $x^2 + 4x - 25 = 7$
   $x^2 + 4x - 32 = 0$
   $(x + 8)(x - 4) = 0$
   $x = -8 \ , \ 4$

10. $x^2 - 15x + 3 = -51$
    $x^2 - 15x + 54 = 0$
    $(x - 9)(x - 6) = 0$
    $x = 9 \ , \ 6$

11. $x^2 + 5x - 10 = 14$
    $x^2 + 5x - 24 = 0$
    $(x - 3)(x + 8) = 0$
    $x = 3 \ , \ -8$

12. $x^2 - 6 = 43$
    $x^2 - 49 = 0$
    $(x - 7)(x + 7) = 0$
    $x = 7 \ , \ -7$