

## Solving Quadratic Equations (B)

Solve each equation for x

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

7.  $4x^2 - 8x - 3 = 18$

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

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

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

9.  $2x^2 + x - 1 = 2$

4.  $4x^2 + 14x + 2 = -8$

10.  $4x^2 - 22x + 5 = -19$

5.  $x^2 - 9x = -8$

11.  $4x^2 - 2x - 32 = 10$

6.  $2x^2 - 4x - 5 = 11$

12.  $4x^2 + 4x + 1 = 0$

# Solving Quadratic Equations (B) Answers

Solve each equation for x

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

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

3.  $2x^2 + 10x - 10 = 2$   
 $2x^2 + 10x - 12 = 0$   
 $(2x - 2)(x + 6) = 0$   
 $x = 1, -6$

4.  $4x^2 + 14x + 2 = -8$   
 $4x^2 + 14x + 10 = 0$   
 $(2x + 2)(2x + 5) = 0$   
 $x = -1, -2 \frac{1}{2}$

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

6.  $2x^2 - 4x - 5 = 11$   
 $2x^2 - 4x - 16 = 0$   
 $(x + 2)(2x - 8) = 0$   
 $x = -2, 4$

7.  $4x^2 - 8x - 3 = 18$   
 $4x^2 - 8x - 21 = 0$   
 $(2x - 7)(2x + 3) = 0$   
 $x = 3 \frac{1}{2}, -1 \frac{1}{2}$

8.  $2x^2 + x - 8 = 2$   
 $2x^2 + x - 10 = 0$   
 $(2x + 5)(x - 2) = 0$   
 $x = -2 \frac{1}{2}, 2$

9.  $2x^2 + x - 1 = 2$   
 $2x^2 + x - 3 = 0$   
 $(2x + 3)(x - 1) = 0$   
 $x = -1 \frac{1}{2}, 1$

10.  $4x^2 - 22x + 5 = -19$   
 $4x^2 - 22x + 24 = 0$   
 $(2x - 3)(2x - 8) = 0$   
 $x = 1 \frac{1}{2}, 4$

11.  $4x^2 - 2x - 32 = 10$   
 $4x^2 - 2x - 42 = 0$   
 $(2x - 7)(2x + 6) = 0$   
 $x = 3 \frac{1}{2}, -3$

12.  $4x^2 + 4x + 1 = 0$   
 $4x^2 + 4x + 1 = 0$   
 $(2x + 1)(2x + 1) = 0$   
 $x = -\frac{1}{2}$