

# Résolution d'Équations Quadratiques (J)

Calculer les solutions des équations suivantes.

1.  $2x^2 - x - 40 = 5$

7.  $4x^2 - 24x + 25 = -10$

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

8.  $x^2 + 14x + 24 = -21$

3.  $2x^2 - x - 18 = 3$

9.  $2x^2 - 6x - 17 = 3$

4.  $x^2 - 27 = 22$

10.  $2x^2 + 5x + 1 = -1$

5.  $2x^2 - 14x + 20 = -4$

11.  $4x^2 - 10x - 23 = 1$

6.  $2x^2 - 5x - 1 = 2$

12.  $x^2 - 2x - 4 = 11$

## Résolution d'Équations Quadratiques (J) Réponses

Calculer les solutions des équations suivantes.

1.  $2x^2 - x - 40 = 5$   
 $2x^2 - x - 45 = 0$   
 $(x - 5)(2x + 9) = 0$   
 $x = 5, -4 \frac{1}{2}$

7.  $4x^2 - 24x + 25 = -10$   
 $4x^2 - 24x + 35 = 0$   
 $(2x - 7)(2x - 5) = 0$   
 $x = 3 \frac{1}{2}, 2 \frac{1}{2}$

2.  $2x^2 - 14x + 14 = -10$   
 $2x^2 - 14x + 24 = 0$   
 $(2x - 8)(x - 3) = 0$   
 $x = 4, 3$

8.  $x^2 + 14x + 24 = -21$   
 $x^2 + 14x + 45 = 0$   
 $(x + 5)(x + 9) = 0$   
 $x = -5, -9$

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

9.  $2x^2 - 6x - 17 = 3$   
 $2x^2 - 6x - 20 = 0$   
 $(x - 5)(2x + 4) = 0$   
 $x = 5, -2$

4.  $x^2 - 27 = 22$   
 $x^2 - 49 = 0$   
 $(x + 7)(x - 7) = 0$   
 $x = -7, 7$

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

5.  $2x^2 - 14x + 20 = -4$   
 $2x^2 - 14x + 24 = 0$   
 $(2x - 6)(x - 4) = 0$   
 $x = 3, 4$

11.  $4x^2 - 10x - 23 = 1$   
 $4x^2 - 10x - 24 = 0$   
 $(2x - 8)(2x + 3) = 0$   
 $x = 4, -1 \frac{1}{2}$

6.  $2x^2 - 5x - 1 = 2$   
 $2x^2 - 5x - 3 = 0$   
 $(x - 3)(2x + 1) = 0$   
 $x = 3, -\frac{1}{2}$

12.  $x^2 - 2x - 4 = 11$   
 $x^2 - 2x - 15 = 0$   
 $(x - 5)(x + 3) = 0$   
 $x = 5, -3$