

# Résolution d'Équations Quadratiques (F)

Calculer les solutions des équations suivantes.

1.  $-45x^2 - 4x = -1$

7.  $36x^2 - 60x - 6 = 18$

2.  $-6x^2 + 38x - 5 = 35$

8.  $8x^2 + 36x + 3 = -13$

3.  $4x^2 + 12x - 6 = 1$

9.  $-6x^2 - 51x - 16 = 8$

4.  $24x^2 + 63x + 9 = -21$

10.  $-21x^2 + 53x - 13 = 17$

5.  $-6x^2 + 3x = -3$

11.  $32x^2 - 72x + 2 = -14$

6.  $56x^2 + 50x = -6$

12.  $-48x^2 - 28x + 47 = -1$

## Résolution d'Équations Quadratiques (F) Réponses

Calculer les solutions des équations suivantes.

1.  $-45x^2 - 4x = -1$   
 $-45x^2 - 4x + 1 = 0$   
 $-(9x - 1)(5x + 1) = 0$   
 $x = 1/9, -1/5$

2.  $-6x^2 + 38x - 5 = 35$   
 $-6x^2 + 38x - 40 = 0$   
 $(6x - 8)(x - 5) = 0$   
 $x = 1\frac{1}{3}, 5$

3.  $4x^2 + 12x - 6 = 1$   
 $4x^2 + 12x - 7 = 0$   
 $(2x + 7)(2x - 1) = 0$   
 $x = -3\frac{1}{2}, \frac{1}{2}$

4.  $24x^2 + 63x + 9 = -21$   
 $24x^2 + 63x + 30 = 0$   
 $(8x + 5)(3x + 6) = 0$   
 $x = -5/8, -2$

5.  $-6x^2 + 3x = -3$   
 $-6x^2 + 3x + 3 = 0$   
 $(3x - 3)(2x + 1) = 0$   
 $x = 1, -1/2$

6.  $56x^2 + 50x = -6$   
 $56x^2 + 50x + 6 = 0$   
 $(7x + 1)(8x + 6) = 0$   
 $x = -1/7, -3/4$

7.  $36x^2 - 60x - 6 = 18$   
 $36x^2 - 60x - 24 = 0$   
 $(4x - 8)(9x + 3) = 0$   
 $x = 2, -1/3$

8.  $8x^2 + 36x + 3 = -13$   
 $8x^2 + 36x + 16 = 0$   
 $(4x + 2)(2x + 8) = 0$   
 $x = -1/2, -4$

9.  $-6x^2 - 51x - 16 = 8$   
 $-6x^2 - 51x - 24 = 0$   
 $-(6x + 3)(x + 8) = 0$   
 $x = -1/2, -8$

10.  $-21x^2 + 53x - 13 = 17$   
 $-21x^2 + 53x - 30 = 0$   
 $-(7x - 6)(3x - 5) = 0$   
 $x = 6/7, 1\frac{2}{3}$

11.  $32x^2 - 72x + 2 = -14$   
 $32x^2 - 72x + 16 = 0$   
 $(8x - 2)(4x - 8) = 0$   
 $x = 1/4, 2$

12.  $-48x^2 - 28x + 47 = -1$   
 $-48x^2 - 28x + 48 = 0$   
 $-(6x + 8)(8x - 6) = 0$   
 $x = -1\frac{1}{3}, 3/4$