Résolution d'Équations Quadratiques (A)

Calculer les solutions des équations suivantes.

1. $24x^2 + 18x - 1 = 5$
2. $72x^2 - 23x - 3 = 1$
3. $16x^2 - 74x + 5 = -4$
4. $36x^2 + 26x + 4 = 0$
5. $24x^2 - x - 2 = 1$
6. $45x^2 - 19x + 1 = -1$
7. $16x^2 - 24x + 5 = -3$
8. $30x^2 + 7x - 10 = 5$
9. $20x^2 - 12x - 2 = 6$
10. $12x^2 - 25x - 4 = 3$
11. $12x^2 + 40x + 15 = -17$
12. $54x^2 + 3x - 2 = 33$

Résolution d'Équations Quadratiques (A) Réponses

Calculer les solutions des équations suivantes.

1. $24x^2 + 18x - 1 = 5$
$24x^2 + 18x - 6 = 0$
$(6x + 6)\ (4x - 1) = 0$
$x = -1\ ,\ \ 1/4$

2. $72x^2 - 23x - 3 = 1$
$72x^2 - 23x - 4 = 0$
$(8x + 1)\ (9x - 4) = 0$
$x = -\ 1/8,\ \ 4/9$

3. $16x^2 - 74x + 5 = -4$
$16x^2 - 74x + 9 = 0$
$(2x - 9)\ (8x - 1) = 0$
$x = 4\ 1/2,\ \ 1/8$

4. $36x^2 + 26x + 4 = 0$
$36x^2 + 26x + 4 = 0$
$(4x + 2)\ (9x + 2) = 0$
$x = -\ 1/2,\ \ -\ 2/9$

5. $24x^2 - x - 2 = 1$
$24x^2 - x - 3 = 0$
$(8x - 3)\ (3x + 1) = 0$
$x = \ 3/8,\ \ -\ 1/3$

6. $45x^2 - 19x + 1 = -1$
$45x^2 - 19x + 2 = 0$
$(5x - 1)\ (9x - 2) = 0$
$x = \ 1/5,\ \ 2/9$

7. $16x^2 - 24x + 5 = -3$
$16x^2 - 24x + 8 = 0$
$(8x - 8)\ (2x - 1) = 0$
$x = 1\ ,\ \ 1/2$

8. $30x^2 + 7x - 10 = 5$
$30x^2 + 7x - 15 = 0$
$(5x - 3)\ (6x + 5) = 0$
$x = \ 3/5,\ \ -\ 5/6$

9. $20x^2 - 12x - 2 = 6$
$20x^2 - 12x - 8 = 0$
$(5x + 2)\ (4x - 4) = 0$
$x = -\ 2/5,\ \ 1$

10. $12x^2 - 25x - 4 = 3$
$12x^2 - 25x - 7 = 0$
$(4x + 1)\ (3x - 7) = 0$
$x = -\ 1/4,\ \ 2\ 1/3$

11. $12x^2 + 40x + 15 = -17$
$12x^2 + 40x + 32 = 0$
$(6x + 8)\ (2x + 4) = 0$
$x = -1\ 1/3,\ \ -2$

12. $54x^2 + 3x - 2 = 33$
$54x^2 + 3x - 35 = 0$
$(6x + 5)\ (9x - 7) = 0$
$x = -\ 5/6,\ \ 7/9$

Résolution d'Équations Quadratiques (B)

Calculer les solutions des équations suivantes.

1. $4x^2 + 40x + 18 = -18$
2. $42x^2 + 4x - 7 = 9$
3. $28x^2 - 43x = -9$
4. $21x^2 + 80x + 57 = -7$
5. $9x^2 - x - 5 = 3$
6. $9x^2 - 61x - 13 = 1$
7. $54x^2 - 21x - 3 = 2$
8. $16x^2 + 62x - 21 = 24$
9. $6x^2 - 31x + 19 = -16$
10. $8x^2 - 56x - 8 = 56$
11. $21x^2 - 8x - 1 = 3$
12. $14x^2 + 58x + 4 = -4$

Résolution d'Équations Quadratiques (B) Réponses

Calculer les solutions des équations suivantes.

1. $4x^2 + 40x + 18 = -18$
   $4x^2 + 40x + 36 = 0$
   $(4x + 4)(x + 9) = 0$
   $x = -1 \ , \ -9$

2. $42x^2 + 4x - 7 = 9$
   $42x^2 + 4x - 16 = 0$
   $(7x - 4)(6x + 4) = 0$
   $x = 4/7, \ -2/3$

3. $28x^2 - 43x = -9$
   $28x^2 - 43x + 9 = 0$
   $(7x - 9)(4x - 1) = 0$
   $x = 1\ 2/7, \ 1/4$

4. $21x^2 + 80x + 57 = -7$
   $21x^2 + 80x + 64 = 0$
   $(7x + 8)(3x + 8) = 0$
   $x = -1\ 1/7, \ -2\ 2/3$

5. $9x^2 - x - 5 = 3$
   $9x^2 - x - 8 = 0$
   $(9x + 8)(x - 1) = 0$
   $x = -8/9, \ 1$

6. $9x^2 - 61x - 13 = 1$
   $9x^2 - 61x - 14 = 0$
   $(x - 7)(9x + 2) = 0$
   $x = 7 \ , \ -2/9$

7. $54x^2 - 21x - 3 = 2$
   $54x^2 - 21x - 5 = 0$
   $(6x + 1)(9x - 5) = 0$
   $x = -1/6, \ 5/9$

8. $16x^2 + 62x - 21 = 24$
   $16x^2 + 62x - 45 = 0$
   $(8x - 5)(2x + 9) = 0$
   $x = 5/8, \ -4\ 1/2$

9. $6x^2 - 31x + 19 = -16$
   $6x^2 - 31x + 35 = 0$
   $(3x - 5)(2x - 7) = 0$
   $x = 1\ 2/3, \ 3\ 1/2$

10. $8x^2 - 56x - 8 = 56$
    $8x^2 - 56x - 64 = 0$
    $(8x + 8)(x - 8) = 0$
    $x = -1 \ , \ 8$

11. $21x^2 - 8x - 1 = 3$
    $21x^2 - 8x - 4 = 0$
    $(3x - 2)(7x + 2) = 0$
    $x = 2/3, \ -2/7$

12. $14x^2 + 58x + 4 = -4$
    $14x^2 + 58x + 8 = 0$
    $(7x + 1)(2x + 8) = 0$
    $x = -1/7, \ -4$

Résolution d'Équations Quadratiques (C)

Calculer les solutions des équations suivantes.

1. $20x^2 - 21x - 2 = 3$
2. $28x^2 + 50x + 9 = -3$
3. $15x^2 + 4x - 27 = 8$
4. $56x^2 - 112x + 31 = -25$
5. $54x^2 + 15x - 5 = 20$
6. $7x^2 + 21x - 24 = 4$
7. $72x^2 - 27x - 12 = 33$
8. $48x^2 - 16x - 19 = 13$
9. $54x^2 - 48x - 26 = 6$
10. $14x^2 - 38x + 4 = -16$
11. $8x^2 + 34x + 35 = 0$
12. $28x^2 - 39x - 39 = 15$

Résolution d'Équations Quadratiques (C) Réponses

Calculer les solutions des équations suivantes.

1. $20x^2 - 21x - 2 = 3$
$20x^2 - 21x - 5 = 0$
$(5x + 1)(4x - 5) = 0$
$x = -1/5,\ 1\ 1/4$

2. $28x^2 + 50x + 9 = -3$
$28x^2 + 50x + 12 = 0$
$(7x + 2)(4x + 6) = 0$
$x = -2/7,\ -1\ 1/2$

3. $15x^2 + 4x - 27 = 8$
$15x^2 + 4x - 35 = 0$
$(5x - 7)(3x + 5) = 0$
$x = 1\ 2/5,\ -1\ 2/3$

4. $56x^2 - 112x + 31 = -25$
$56x^2 - 112x + 56 = 0$
$(7x - 7)(8x - 8) = 0$
$x = 1$

5. $54x^2 + 15x - 5 = 20$
$54x^2 + 15x - 25 = 0$
$(9x - 5)(6x + 5) = 0$
$x = 5/9,\ -5/6$

6. $7x^2 + 21x - 24 = 4$
$7x^2 + 21x - 28 = 0$
$(7x - 7)(x + 4) = 0$
$x = 1\ ,\ -4$

7. $72x^2 - 27x - 12 = 33$
$72x^2 - 27x - 45 = 0$
$(8x + 5)(9x - 9) = 0$
$x = -5/8,\ 1$

8. $48x^2 - 16x - 19 = 13$
$48x^2 - 16x - 32 = 0$
$(8x - 8)(6x + 4) = 0$
$x = 1\ ,\ -2/3$

9. $54x^2 - 48x - 26 = 6$
$54x^2 - 48x - 32 = 0$
$(9x + 4)(6x - 8) = 0$
$x = -4/9,\ 1\ 1/3$

10. $14x^2 - 38x + 4 = -16$
$14x^2 - 38x + 20 = 0$
$(2x - 4)(7x - 5) = 0$
$x = 2\ ,\ 5/7$

11. $8x^2 + 34x + 35 = 0$
$8x^2 + 34x + 35 = 0$
$(2x + 5)(4x + 7) = 0$
$x = -2\ 1/2,\ -1\ 3/4$

12. $28x^2 - 39x - 39 = 15$
$28x^2 - 39x - 54 = 0$
$(4x - 9)(7x + 6) = 0$
$x = 2\ 1/4,\ -6/7$

Résolution d'Équations Quadratiques (D)

Calculer les solutions des équations suivantes.

1. $10x^2 - 30x + 9 = -11$
2. $40x^2 + 32x - 57 = 15$
3. $42x^2 - 45x + 1 = -11$
4. $6x^2 - 36x + 17 = -37$
5. $15x^2 - 58x + 43 = -5$
6. $24x^2 + 16x - 4 = 4$
7. $49x^2 + 21x - 1 = 3$
8. $14x^2 + 71x + 21 = -15$
9. $64x^2 - 16x - 6 = 9$
10. $18x^2 - 2 = 16$
11. $81x^2 - 27x - 2 = 2$
12. $4x^2 + 10x - 2 = 4$

Résolution d'Équations Quadratiques (D) Réponses

Calculer les solutions des équations suivantes.

1. $10x^2 - 30x + 9 = -11$
$10x^2 - 30x + 20 = 0$
$(5x - 5)(2x - 4) = 0$
$x = 1\ ,\ \ 2$

2. $40x^2 + 32x - 57 = 15$
$40x^2 + 32x - 72 = 0$
$(5x + 9)(8x - 8) = 0$
$x = -1\ 4/5,\ \ 1$

3. $42x^2 - 45x + 1 = -11$
$42x^2 - 45x + 12 = 0$
$(7x - 4)(6x - 3) = 0$
$x = \ 4/7,\ \ 1/2$

4. $6x^2 - 36x + 17 = -37$
$6x^2 - 36x + 54 = 0$
$(2x - 6)(3x - 9) = 0$
$x = 3$

5. $15x^2 - 58x + 43 = -5$
$15x^2 - 58x + 48 = 0$
$(5x - 6)(3x - 8) = 0$
$x = 1\ 1/5,\ \ 2\ 2/3$

6. $24x^2 + 16x - 4 = 4$
$24x^2 + 16x - 8 = 0$
$(6x - 2)(4x + 4) = 0$
$x = \ 1/3,\ \ -1$

7. $49x^2 + 21x - 1 = 3$
$49x^2 + 21x - 4 = 0$
$(7x + 4)(7x - 1) = 0$
$x = -\ 4/7,\ \ 1/7$

8. $14x^2 + 71x + 21 = -15$
$14x^2 + 71x + 36 = 0$
$(7x + 4)(2x + 9) = 0$
$x = -\ 4/7,\ \ -4\ 1/2$

9. $64x^2 - 16x - 6 = 9$
$64x^2 - 16x - 15 = 0$
$(8x + 3)(8x - 5) = 0$
$x = -\ 3/8,\ \ 5/8$

10. $18x^2 - 2 = 16$
$18x^2 - 18 = 0$
$(3x + 3)(6x - 6) = 0$
$x = -1\ ,\ \ 1$

11. $81x^2 - 27x - 2 = 2$
$81x^2 - 27x - 4 = 0$
$(9x + 1)(9x - 4) = 0$
$x = -\ 1/9,\ \ 4/9$

12. $4x^2 + 10x - 2 = 4$
$4x^2 + 10x - 6 = 0$
$(x + 3)(4x - 2) = 0$
$x = -3\ ,\ \ 1/2$

Résolution d'Équations Quadratiques (E)

Calculer les solutions des équations suivantes.

1. $72x^2 - 40x - 25 = 7$
2. $2x^2 + 2x - 7 = 5$
3. $10x^2 - 31x + 20 = -4$
4. $27x^2 + 45x + 5 = -13$
5. $6x^2 + 42x + 30 = -6$
6. $10x^2 - 2x - 10 = 2$
7. $9x^2 - 14 = 11$
8. $8x^2 + 4x - 1 = 3$
9. $54x^2 + 18x - 7 = 29$
10. $21x^2 + 23x + 5 = -1$
11. $28x^2 + 65x + 15 = -13$
12. $45x^2 + 62x + 15 = -6$

Résolution d'Équations Quadratiques (E) Réponses

Calculer les solutions des équations suivantes.

1. $72x^2 - 40x - 25 = 7$
   $72x^2 - 40x - 32 = 0$
   $(8x - 8)(9x + 4) = 0$
   $x = 1\ ,\ -4/9$

2. $2x^2 + 2x - 7 = 5$
   $2x^2 + 2x - 12 = 0$
   $(2x + 6)(x - 2) = 0$
   $x = -3\ ,\ 2$

3. $10x^2 - 31x + 20 = -4$
   $10x^2 - 31x + 24 = 0$
   $(2x - 3)(5x - 8) = 0$
   $x = 1\ 1/2,\ 1\ 3/5$

4. $27x^2 + 45x + 5 = -13$
   $27x^2 + 45x + 18 = 0$
   $(9x + 9)(3x + 2) = 0$
   $x = -1\ ,\ -2/3$

5. $6x^2 + 42x + 30 = -6$
   $6x^2 + 42x + 36 = 0$
   $(6x + 6)(x + 6) = 0$
   $x = -1\ ,\ -6$

6. $10x^2 - 2x - 10 = 2$
   $10x^2 - 2x - 12 = 0$
   $(5x - 6)(2x + 2) = 0$
   $x = 1\ 1/5,\ -1$

7. $9x^2 - 14 = 11$
   $9x^2 - 25 = 0$
   $(3x - 5)(3x + 5) = 0$
   $x = 1\ 2/3,\ -1\ 2/3$

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

9. $54x^2 + 18x - 7 = 29$
   $54x^2 + 18x - 36 = 0$
   $(9x - 6)(6x + 6) = 0$
   $x = 2/3,\ -1$

10. $21x^2 + 23x + 5 = -1$
    $21x^2 + 23x + 6 = 0$
    $(3x + 2)(7x + 3) = 0$
    $x = -2/3,\ -3/7$

11. $28x^2 + 65x + 15 = -13$
    $28x^2 + 65x + 28 = 0$
    $(4x + 7)(7x + 4) = 0$
    $x = -1\ 3/4,\ -4/7$

12. $45x^2 + 62x + 15 = -6$
    $45x^2 + 62x + 21 = 0$
    $(9x + 7)(5x + 3) = 0$
    $x = -7/9,\ -3/5$

Résolution d'Équations Quadratiques (F)

Calculer les solutions des équations suivantes.

1. $45x^2 + 18x - 45 = 18$
2. $12x^2 + 18x - 30 = 24$
3. $28x^2 + 62x + 5 = -25$
4. $6x^2 - 21x - 6 = 39$
5. $56x^2 - 36x + 1 = -3$
6. $64x^2 + 120x + 10 = -44$
7. $12x^2 + 28x - 4 = 20$
8. $6x^2 - 39x + 44 = -1$
9. $8x^2 - 36x + 36 = -4$
10. $28x^2 + 37x + 8 = -4$
11. $25x^2 + 80x + 1 = -62$
12. $21x^2 + 30x + 2 = -7$

Résolution d'Équations Quadratiques (F) Réponses

Calculer les solutions des équations suivantes.

1. $45x^2 + 18x - 45 = 18$
$45x^2 + 18x - 63 = 0$
$(9x - 9)(5x + 7) = 0$
$x = 1\ ,\ -1\ 2/5$

2. $12x^2 + 18x - 30 = 24$
$12x^2 + 18x - 54 = 0$
$(6x - 9)(2x + 6) = 0$
$x = 1\ 1/2,\ -3$

3. $28x^2 + 62x + 5 = -25$
$28x^2 + 62x + 30 = 0$
$(7x + 5)(4x + 6) = 0$
$x = -\ 5/7,\ -1\ 1/2$

4. $6x^2 - 21x - 6 = 39$
$6x^2 - 21x - 45 = 0$
$(x - 5)(6x + 9) = 0$
$x = 5\ ,\ -1\ 1/2$

5. $56x^2 - 36x + 1 = -3$
$56x^2 - 36x + 4 = 0$
$(7x - 1)(8x - 4) = 0$
$x = \ 1/7,\ \ 1/2$

6. $64x^2 + 120x + 10 = -44$
$64x^2 + 120x + 54 = 0$
$(8x + 9)(8x + 6) = 0$
$x = -1\ 1/8,\ -\ 3/4$

7. $12x^2 + 28x - 4 = 20$
$12x^2 + 28x - 24 = 0$
$(2x + 6)(6x - 4) = 0$
$x = -3\ ,\ \ 2/3$

8. $6x^2 - 39x + 44 = -1$
$6x^2 - 39x + 45 = 0$
$(6x - 9)(x - 5) = 0$
$x = 1\ 1/2,\ \ 5$

9. $8x^2 - 36x + 36 = -4$
$8x^2 - 36x + 40 = 0$
$(4x - 8)(2x - 5) = 0$
$x = 2\ ,\ \ 2\ 1/2$

10. $28x^2 + 37x + 8 = -4$
$28x^2 + 37x + 12 = 0$
$(7x + 4)(4x + 3) = 0$
$x = -\ 4/7,\ -\ 3/4$

11. $25x^2 + 80x + 1 = -62$
$25x^2 + 80x + 63 = 0$
$(5x + 9)(5x + 7) = 0$
$x = -1\ 4/5,\ -1\ 2/5$

12. $21x^2 + 30x + 2 = -7$
$21x^2 + 30x + 9 = 0$
$(3x + 3)(7x + 3) = 0$
$x = -1\ ,\ -\ 3/7$

Résolution d'Équations Quadratiques (G)

Calculer les solutions des équations suivantes.

1. $24x^2 - 45x + 15 = -6$
2. $35x^2 + 52x + 9 = 0$
3. $56x^2 + 14x - 17 = 25$
4. $63x^2 - 15x - 8 = 10$
5. $12x^2 - 10x - 1 = 1$
6. $24x^2 - 13x - 3 = 4$
7. $8x^2 - 18x - 16 = 2$
8. $6x^2 - 3x - 15 = 15$
9. $48x^2 - 84x + 13 = -5$
10. $3x^2 - 32x = -64$
11. $54x^2 - 15x - 1 = 3$
12. $64x^2 - 40x - 1 = 5$

Résolution d'Équations Quadratiques (G) Réponses

Calculer les solutions des équations suivantes.

1. $24x^2 - 45x + 15 = -6$
$24x^2 - 45x + 21 = 0$
$(8x - 7)(3x - 3) = 0$
$x = 7/8,\ 1$

2. $35x^2 + 52x + 9 = 0$
$35x^2 + 52x + 9 = 0$
$(7x + 9)(5x + 1) = 0$
$x = -1\ 2/7,\ -1/5$

3. $56x^2 + 14x - 17 = 25$
$56x^2 + 14x - 42 = 0$
$(8x - 6)(7x + 7) = 0$
$x = 3/4,\ -1$

4. $63x^2 - 15x - 8 = 10$
$63x^2 - 15x - 18 = 0$
$(9x - 6)(7x + 3) = 0$
$x = 2/3,\ -3/7$

5. $12x^2 - 10x - 1 = 1$
$12x^2 - 10x - 2 = 0$
$(2x - 2)(6x + 1) = 0$
$x = 1\ ,\ -1/6$

6. $24x^2 - 13x - 3 = 4$
$24x^2 - 13x - 7 = 0$
$(8x - 7)(3x + 1) = 0$
$x = 7/8,\ -1/3$

7. $8x^2 - 18x - 16 = 2$
$8x^2 - 18x - 18 = 0$
$(4x + 3)(2x - 6) = 0$
$x = -3/4,\ 3$

8. $6x^2 - 3x - 15 = 15$
$6x^2 - 3x - 30 = 0$
$(2x - 5)(3x + 6) = 0$
$x = 2\ 1/2,\ -2$

9. $48x^2 - 84x + 13 = -5$
$48x^2 - 84x + 18 = 0$
$(6x - 9)(8x - 2) = 0$
$x = 1\ 1/2,\ 1/4$

10. $3x^2 - 32x = -64$
$3x^2 - 32x + 64 = 0$
$(3x - 8)(x - 8) = 0$
$x = 2\ 2/3,\ 8$

11. $54x^2 - 15x - 1 = 3$
$54x^2 - 15x - 4 = 0$
$(9x - 4)(6x + 1) = 0$
$x = 4/9,\ -1/6$

12. $64x^2 - 40x - 1 = 5$
$64x^2 - 40x - 6 = 0$
$(8x - 6)(8x + 1) = 0$
$x = 3/4,\ -1/8$

Résolution d'Équations Quadratiques (H)

Calculer les solutions des équations suivantes.

1. $72x^2 + 100x + 2 = -30$
2. $15x^2 + 8x - 42 = 21$
3. $48x^2 + 48x + 6 = -6$
4. $48x^2 + 24x - 31 = 41$
5. $4x^2 + 33x - 11 = 16$
6. $27x^2 - 36x - 26 = 10$
7. $6x^2 - 10x - 3 = 1$
8. $21x^2 + 18x - 1 = 2$
9. $9x^2 + 39x + 8 = -4$
10. $21x^2 - 17x - 5 = 3$
11. $27x^2 - 45x - 2 = 40$
12. $2x^2 + 12x + 8 = -2$

Résolution d'Équations Quadratiques (H) Réponses

Calculer les solutions des équations suivantes.

1. $72x^2 + 100x + 2 = -30$
$72x^2 + 100x + 32 = 0$
$(9x + 8)\ (8x + 4) = 0$
$x = -\ 8/9,\ \ -\ 1/2$

2. $15x^2 + 8x - 42 = 21$
$15x^2 + 8x - 63 = 0$
$(3x + 7)\ (5x - 9) = 0$
$x = -2\ 1/3,\ \ 1\ 4/5$

3. $48x^2 + 48x + 6 = -6$
$48x^2 + 48x + 12 = 0$
$(6x + 3)\ (8x + 4) = 0$
$x = -\ 1/2$

4. $48x^2 + 24x - 31 = 41$
$48x^2 + 24x - 72 = 0$
$(6x + 9)\ (8x - 8) = 0$
$x = -1\ 1/2,\ \ 1$

5. $4x^2 + 33x - 11 = 16$
$4x^2 + 33x - 27 = 0$
$(x + 9)\ (4x - 3) = 0$
$x = -9\ ,\ \ 3/4$

6. $27x^2 - 36x - 26 = 10$
$27x^2 - 36x - 36 = 0$
$(9x + 6)\ (3x - 6) = 0$
$x = -\ 2/3,\ \ 2$

7. $6x^2 - 10x - 3 = 1$
$6x^2 - 10x - 4 = 0$
$(6x + 2)\ (x - 2) = 0$
$x = -\ 1/3,\ \ 2$

8. $21x^2 + 18x - 1 = 2$
$21x^2 + 18x - 3 = 0$
$(3x + 3)\ (7x - 1) = 0$
$x = -1\ ,\ \ 1/7$

9. $9x^2 + 39x + 8 = -4$
$9x^2 + 39x + 12 = 0$
$(9x + 3)\ (x + 4) = 0$
$x = -\ 1/3,\ \ -4$

10. $21x^2 - 17x - 5 = 3$
$21x^2 - 17x - 8 = 0$
$(3x + 1)\ (7x - 8) = 0$
$x = -\ 1/3,\ \ 1\ 1/7$

11. $27x^2 - 45x - 2 = 40$
$27x^2 - 45x - 42 = 0$
$(3x - 7)\ (9x + 6) = 0$
$x = 2\ 1/3,\ \ -\ 2/3$

12. $2x^2 + 12x + 8 = -2$
$2x^2 + 12x + 10 = 0$
$(x + 5)\ (2x + 2) = 0$
$x = -5\ ,\ \ -1$

Résolution d'Équations Quadratiques (I)

Calculer les solutions des équations suivantes.

1. $12x^2 - 31x + 6 = -1$
2. $9x^2 - 6x + 1 = 0$
3. $72x^2 - 11x - 17 = 18$
4. $40x^2 + 112x + 10 = -62$
5. $4x^2 - 11x + 4 = -3$
6. $21x^2 - 10x - 15 = 9$
7. $10x^2 + 52x + 16 = -32$
8. $16x^2 - 66x - 19 = 8$
9. $48x^2 + 34x - 1 = 4$
10. $32x^2 - 16x + 1 = -1$
11. $63x^2 - 91x + 15 = -13$
12. $30x^2 - 4x - 1 = 1$

Résolution d'Équations Quadratiques (I) Réponses

Calculer les solutions des équations suivantes.

1. $12x^2 - 31x + 6 = -1$
$12x^2 - 31x + 7 = 0$
$(3x - 7)(4x - 1) = 0$
$x = 2\ 1/3,\quad 1/4$

2. $9x^2 - 6x + 1 = 0$
$9x^2 - 6x + 1 = 0$
$(3x - 1)(3x - 1) = 0$
$x = 1/3$

3. $72x^2 - 11x - 17 = 18$
$72x^2 - 11x - 35 = 0$
$(9x - 7)(8x + 5) = 0$
$x = 7/9,\quad -5/8$

4. $40x^2 + 112x + 10 = -62$
$40x^2 + 112x + 72 = 0$
$(8x + 8)(5x + 9) = 0$
$x = -1\ ,\quad -1\ 4/5$

5. $4x^2 - 11x + 4 = -3$
$4x^2 - 11x + 7 = 0$
$(4x - 7)(x - 1) = 0$
$x = 1\ 3/4,\quad 1$

6. $21x^2 - 10x - 15 = 9$
$21x^2 - 10x - 24 = 0$
$(7x + 6)(3x - 4) = 0$
$x = -6/7,\quad 1\ 1/3$

7. $10x^2 + 52x + 16 = -32$
$10x^2 + 52x + 48 = 0$
$(5x + 6)(2x + 8) = 0$
$x = -1\ 1/5,\quad -4$

8. $16x^2 - 66x - 19 = 8$
$16x^2 - 66x - 27 = 0$
$(8x + 3)(2x - 9) = 0$
$x = -3/8,\quad 4\ 1/2$

9. $48x^2 + 34x - 1 = 4$
$48x^2 + 34x - 5 = 0$
$(6x + 5)(8x - 1) = 0$
$x = -5/6,\quad 1/8$

10. $32x^2 - 16x + 1 = -1$
$32x^2 - 16x + 2 = 0$
$(4x - 1)(8x - 2) = 0$
$x = 1/4$

11. $63x^2 - 91x + 15 = -13$
$63x^2 - 91x + 28 = 0$
$(7x - 7)(9x - 4) = 0$
$x = 1\ ,\quad 4/9$

12. $30x^2 - 4x - 1 = 1$
$30x^2 - 4x - 2 = 0$
$(5x + 1)(6x - 2) = 0$
$x = -1/5,\quad 1/3$

Résolution d'Équations Quadratiques (J)

Calculer les solutions des équations suivantes.

1. $32x^2 - 92x + 31 = -14$
2. $9x^2 + 24x + 1 = -11$
3. $16x^2 + 60x - 15 = 1$
4. $30x^2 + 52x + 10 = -6$
5. $20x^2 - 46x + 13 = -11$
6. $2x^2 + 7x - 17 = 13$
7. $5x^2 + 20x - 5 = 20$
8. $8x^2 - 24x + 11 = -5$
9. $x^2 - 4x - 8 = 4$
10. $9x^2 - 55x + 5 = -1$
11. $36x^2 - 24x + 1 = -2$
12. $4x^2 - 10x = -4$

Résolution d'Équations Quadratiques (J) Réponses

Calculer les solutions des équations suivantes.

1. $32x^2 - 92x + 31 = -14$
$32x^2 - 92x + 45 = 0$
$(4x - 9)(8x - 5) = 0$
$x = 2\ 1/4,\quad 5/8$

2. $9x^2 + 24x + 1 = -11$
$9x^2 + 24x + 12 = 0$
$(3x + 2)(3x + 6) = 0$
$x = -2/3,\quad -2$

3. $16x^2 + 60x - 15 = 1$
$16x^2 + 60x - 16 = 0$
$(2x + 8)(8x - 2) = 0$
$x = -4\ ,\quad 1/4$

4. $30x^2 + 52x + 10 = -6$
$30x^2 + 52x + 16 = 0$
$(6x + 8)(5x + 2) = 0$
$x = -1\ 1/3,\quad -2/5$

5. $20x^2 - 46x + 13 = -11$
$20x^2 - 46x + 24 = 0$
$(5x - 4)(4x - 6) = 0$
$x = 4/5,\quad 1\ 1/2$

6. $2x^2 + 7x - 17 = 13$
$2x^2 + 7x - 30 = 0$
$(x + 6)(2x - 5) = 0$
$x = -6\ ,\quad 2\ 1/2$

7. $5x^2 + 20x - 5 = 20$
$5x^2 + 20x - 25 = 0$
$(x + 5)(5x - 5) = 0$
$x = -5\ ,\quad 1$

8. $8x^2 - 24x + 11 = -5$
$8x^2 - 24x + 16 = 0$
$(x - 2)(8x - 8) = 0$
$x = 2\ ,\quad 1$

9. $x^2 - 4x - 8 = 4$
$x^2 - 4x - 12 = 0$
$(x - 6)(x + 2) = 0$
$x = 6\ ,\quad -2$

10. $9x^2 - 55x + 5 = -1$
$9x^2 - 55x + 6 = 0$
$(9x - 1)(x - 6) = 0$
$x = 1/9,\quad 6$

11. $36x^2 - 24x + 1 = -2$
$36x^2 - 24x + 3 = 0$
$(6x - 3)(6x - 1) = 0$
$x = 1/2,\quad 1/6$

12. $4x^2 - 10x = -4$
$4x^2 - 10x + 4 = 0$
$(4x - 2)(x - 2) = 0$
$x = 1/2,\quad 2$