Résolution d'Équations Quadratiques (A)

Calculer les solutions des équations suivantes.

1. $2x^2 + 2x - 24 = 0$
2. $2x^2 + 3x - 5 = 0$
3. $2x^2 - 14x - 36 = 0$
4. $4x^2 - 14x - 8 = 0$
5. $4x^2 + 8x - 21 = 0$
6. $2x^2 - 15x + 27 = 0$
7. $2x^2 + 3x - 5 = 0$
8. $2x^2 - 17x + 36 = 0$
9. $4x^2 + 22x + 28 = 0$
10. $2x^2 + 12x - 54 = 0$
11. $2x^2 + 10x - 72 = 0$
12. $x^2 - 16x + 64 = 0$

Résolution d'Équations Quadratiques (A) Réponses

Calculer les solutions des équations suivantes.

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

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

3. $2x^2 - 14x - 36 = 0$
   $(2x + 4)(x - 9) = 0$
   $x = -2 \ , \ 9$

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

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

6. $2x^2 - 15x + 27 = 0$
   $(x - 3)(2x - 9) = 0$
   $x = 3 \ , \ 4\ 1/2$

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

8. $2x^2 - 17x + 36 = 0$
   $(x - 4)(2x - 9) = 0$
   $x = 4 \ , \ 4\ 1/2$

9. $4x^2 + 22x + 28 = 0$
   $(2x + 7)(2x + 4) = 0$
   $x = -3\ 1/2, \ -2$

10. $2x^2 + 12x - 54 = 0$
    $(2x - 6)(x + 9) = 0$
    $x = 3 \ , \ -9$

11. $2x^2 + 10x - 72 = 0$
    $(2x - 8)(x + 9) = 0$
    $x = 4 \ , \ -9$

12. $x^2 - 16x + 64 = 0$
    $(x - 8)(x - 8) = 0$
    $x = 8$

Résolution d'Équations Quadratiques (B)

Calculer les solutions des équations suivantes.

1. $4x^2 - 22x + 28 = 0$
2. $2x^2 + 10x + 12 = 0$
3. $4x^2 + 2x - 12 = 0$
4. $2x^2 + x - 1 = 0$
5. $2x^2 + 10x + 12 = 0$
6. $4x^2 + 2x - 56 = 0$
7. $2x^2 + 6x + 4 = 0$
8. $2x^2 + 7x + 5 = 0$
9. $x^2 + x - 30 = 0$
10. $2x^2 + 11x - 40 = 0$
11. $x^2 - 14x + 48 = 0$
12. $2x^2 - 8x + 8 = 0$

Résolution d'Équations Quadratiques (B) Réponses

Calculer les solutions des équations suivantes.

1. $4x^2 - 22x + 28 = 0$
   $(2x - 7)(2x - 4) = 0$
   $x = 3\ 1/2,\ \ 2$

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

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

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

5. $2x^2 + 10x + 12 = 0$
   $(2x + 4)(x + 3) = 0$
   $x = -2\ ,\ \ -3$

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

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

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

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

10. $2x^2 + 11x - 40 = 0$
    $(x + 8)(2x - 5) = 0$
    $x = -8\ ,\ \ 2\ 1/2$

11. $x^2 - 14x + 48 = 0$
    $(x - 8)(x - 6) = 0$
    $x = 8\ ,\ \ 6$

12. $2x^2 - 8x + 8 = 0$
    $(x - 2)(2x - 4) = 0$
    $x = 2$

Résolution d'Équations Quadratiques (C)

Calculer les solutions des équations suivantes.

1. $4x^2 - 10x + 6 = 0$
2. $x^2 - 10x + 25 = 0$
3. $4x^2 - 10x + 4 = 0$
4. $2x^2 - 8 = 0$
5. $2x^2 - 19x + 9 = 0$
6. $4x^2 + 4x - 35 = 0$
7. $x^2 + 6x + 9 = 0$
8. $4x^2 - 28x + 48 = 0$
9. $2x^2 - 6x + 4 = 0$
10. $2x^2 + 27x + 81 = 0$
11. $2x^2 + 5x + 3 = 0$
12. $x^2 + 11x + 28 = 0$

Résolution d'Équations Quadratiques (C) Réponses

Calculer les solutions des équations suivantes.

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

2. $x^2 - 10x + 25 = 0$
   $(x - 5)(x - 5) = 0$
   $x = 5$

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

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

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

6. $4x^2 + 4x - 35 = 0$
   $(2x + 7)(2x - 5) = 0$
   $x = -3\ 1/2, \ 2\ 1/2$

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

8. $4x^2 - 28x + 48 = 0$
   $(2x - 8)(2x - 6) = 0$
   $x = 4 \ , \ 3$

9. $2x^2 - 6x + 4 = 0$
   $(x - 1)(2x - 4) = 0$
   $x = 1 \ , \ 2$

10. $2x^2 + 27x + 81 = 0$
    $(2x + 9)(x + 9) = 0$
    $x = -4\ 1/2, \ -9$

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

12. $x^2 + 11x + 28 = 0$
    $(x + 7)(x + 4) = 0$
    $x = -7 \ , \ -4$

Résolution d'Équations Quadratiques (D)

Calculer les solutions des équations suivantes.

1. $x^2 + 4x - 45 = 0$
2. $4x^2 - 12x - 7 = 0$
3. $2x^2 + 2x - 4 = 0$
4. $4x^2 + 6x - 40 = 0$
5. $x^2 + 3x - 4 = 0$
6. $2x^2 - 4x - 48 = 0$
7. $4x^2 - 12x - 7 = 0$
8. $2x^2 + 5x - 18 = 0$
9. $2x^2 + 20x + 32 = 0$
10. $2x^2 - 4x - 48 = 0$
11. $2x^2 + 25x + 72 = 0$
12. $2x^2 - 5x + 3 = 0$

Résolution d'Équations Quadratiques (D) Réponses

Calculer les solutions des équations suivantes.

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

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

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

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

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

6. $2x^2 - 4x - 48 = 0$
   $(x - 6)(2x + 8) = 0$
   $x = 6 \ , \ -4$

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

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

9. $2x^2 + 20x + 32 = 0$
   $(x + 8)(2x + 4) = 0$
   $x = -8 \ , \ -2$

10. $2x^2 - 4x - 48 = 0$
    $(x - 6)(2x + 8) = 0$
    $x = 6 \ , \ -4$

11. $2x^2 + 25x + 72 = 0$
    $(x + 8)(2x + 9) = 0$
    $x = -8 \ , \ -4\ 1/2$

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

Résolution d'Équations Quadratiques (E)

Calculer les solutions des équations suivantes.

1. $x^2 - 15x + 56 = 0$
2. $2x^2 - 24x + 54 = 0$
3. $4x^2 - 4x - 3 = 0$
4. $4x^2 - 2x - 72 = 0$
5. $2x^2 - 13x - 45 = 0$
6. $x^2 - 6x + 8 = 0$
7. $4x^2 + 2x - 56 = 0$
8. $4x^2 - 2x - 20 = 0$
9. $2x^2 - 13x + 18 = 0$
10. $2x^2 - 2x - 4 = 0$
11. $x^2 - x - 72 = 0$
12. $x^2 + 8x + 16 = 0$

Résolution d'Équations Quadratiques (E) Réponses

Calculer les solutions des équations suivantes.

1. $x^2 - 15x + 56 = 0$
   $(x - 8)(x - 7) = 0$
   $x = 8 \ , \ 7$

2. $2x^2 - 24x + 54 = 0$
   $(x - 9)(2x - 6) = 0$
   $x = 9 \ , \ 3$

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

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

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

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

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

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

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

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

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

12. $x^2 + 8x + 16 = 0$
    $(x + 4)(x + 4) = 0$
    $x = -4$

Résolution d'Équations Quadratiques (F)

Calculer les solutions des équations suivantes.

1. $x^2 + 4x - 5 = 0$
2. $4x^2 + 20x + 16 = 0$
3. $x^2 - 3x - 28 = 0$
4. $2x^2 + 3x - 14 = 0$
5. $4x^2 - 4x - 8 = 0$
6. $2x^2 + 9x + 7 = 0$
7. $2x^2 + 19x + 45 = 0$
8. $2x^2 + x - 45 = 0$
9. $2x^2 - 24x + 54 = 0$
10. $4x^2 - 22x + 28 = 0$
11. $4x^2 - 20x + 16 = 0$
12. $2x^2 - 4x - 48 = 0$

Résolution d'Équations Quadratiques (F) Réponses

Calculer les solutions des équations suivantes.

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

2. $4x^2 + 20x + 16 = 0$
   $(2x + 2)(2x + 8) = 0$
   $x = -1 \ , \ -4$

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

4. $2x^2 + 3x - 14 = 0$
   $(x - 2)(2x + 7) = 0$
   $x = 2 \ , \ -3\ 1/2$

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

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

7. $2x^2 + 19x + 45 = 0$
   $(x + 5)(2x + 9) = 0$
   $x = -5 \ , \ -4\ 1/2$

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

9. $2x^2 - 24x + 54 = 0$
   $(x - 9)(2x - 6) = 0$
   $x = 9 \ , \ 3$

10. $4x^2 - 22x + 28 = 0$
    $(2x - 4)(2x - 7) = 0$
    $x = 2 \ , \ 3\ 1/2$

11. $4x^2 - 20x + 16 = 0$
    $(2x - 2)(2x - 8) = 0$
    $x = 1 \ , \ 4$

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

Résolution d'Équations Quadratiques (G)

Calculer les solutions des équations suivantes.

1. $2x^2 + 11x - 21 = 0$
2. $x^2 - 15x + 56 = 0$
3. $x^2 - 5x + 6 = 0$
4. $x^2 - 7x - 8 = 0$
5. $x^2 - 16x + 63 = 0$
6. $2x^2 + 10x - 12 = 0$
7. $2x^2 + 6x - 8 = 0$
8. $2x^2 - 3x + 1 = 0$
9. $x^2 - x - 30 = 0$
10. $x^2 + 4x + 3 = 0$
11. $2x^2 - 9x + 9 = 0$
12. $2x^2 - 19x + 35 = 0$

Résolution d'Équations Quadratiques (G) Réponses

Calculer les solutions des équations suivantes.

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

2. $x^2 - 15x + 56 = 0$
   $(x - 7)(x - 8) = 0$
   $x = 7 \ , \ 8$

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

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

5. $x^2 - 16x + 63 = 0$
   $(x - 7)(x - 9) = 0$
   $x = 7 \ , \ 9$

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

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

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

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

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

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

12. $2x^2 - 19x + 35 = 0$
    $(2x - 5)(x - 7) = 0$
    $x = 2\ 1/2, \ 7$

Résolution d'Équations Quadratiques (H)

Calculer les solutions des équations suivantes.

1. $2x^2 - 17x + 21 = 0$
2. $4x^2 + 2x - 56 = 0$
3. $x^2 - x - 42 = 0$
4. $4x^2 - 6x - 4 = 0$
5. $2x^2 - 7x - 4 = 0$
6. $x^2 + 3x - 40 = 0$
7. $x^2 + 11x + 24 = 0$
8. $2x^2 + 5x + 2 = 0$
9. $2x^2 + 17x + 30 = 0$
10. $4x^2 + 4x - 24 = 0$
11. $4x^2 + 8x + 3 = 0$
12. $x^2 + x - 20 = 0$

Résolution d'Équations Quadratiques (H) Réponses

Calculer les solutions des équations suivantes.

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

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

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

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

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

6. $x^2 + 3x - 40 = 0$
   $(x + 8)\ (x - 5) = 0$
   $x = -8\ ,\ 5$

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

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

9. $2x^2 + 17x + 30 = 0$
   $(2x + 5)\ (x + 6) = 0$
   $x = -2\ 1/2,\ -6$

10. $4x^2 + 4x - 24 = 0$
    $(2x + 6)\ (2x - 4) = 0$
    $x = -3\ ,\ 2$

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

12. $x^2 + x - 20 = 0$
    $(x - 4)\ (x + 5) = 0$
    $x = 4\ ,\ -5$

Résolution d'Équations Quadratiques (I)

Calculer les solutions des équations suivantes.

1. $2x^2 - 11x - 63 = 0$
2. $2x^2 + 21x + 49 = 0$
3. $x^2 + 7x + 10 = 0$
4. $2x^2 - 5x - 25 = 0$
5. $4x^2 + 12x + 5 = 0$
6. $x^2 + 5x - 14 = 0$
7. $4x^2 - 6x - 18 = 0$
8. $x^2 + 6x + 9 = 0$
9. $2x^2 + 6x - 36 = 0$
10. $2x^2 + 27x + 81 = 0$
11. $2x^2 - 2x - 12 = 0$
12. $2x^2 - 19x + 24 = 0$

Résolution d'Équations Quadratiques (I) Réponses

Calculer les solutions des équations suivantes.

1. $2x^2 - 11x - 63 = 0$
   $(2x + 7)(x - 9) = 0$
   $x = -3\ 1/2,\ 9$

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

3. $x^2 + 7x + 10 = 0$
   $(x + 2)(x + 5) = 0$
   $x = -2\ ,\ -5$

4. $2x^2 - 5x - 25 = 0$
   $(x - 5)(2x + 5) = 0$
   $x = 5\ ,\ -2\ 1/2$

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

6. $x^2 + 5x - 14 = 0$
   $(x - 2)(x + 7) = 0$
   $x = 2\ ,\ -7$

7. $4x^2 - 6x - 18 = 0$
   $(2x - 6)(2x + 3) = 0$
   $x = 3\ ,\ -1\ 1/2$

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

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

10. $2x^2 + 27x + 81 = 0$
    $(x + 9)(2x + 9) = 0$
    $x = -9\ ,\ -4\ 1/2$

11. $2x^2 - 2x - 12 = 0$
    $(2x - 6)(x + 2) = 0$
    $x = 3\ ,\ -2$

12. $2x^2 - 19x + 24 = 0$
    $(x - 8)(2x - 3) = 0$
    $x = 8\ ,\ 1\ 1/2$

Résolution d'Équations Quadratiques (J)

Calculer les solutions des équations suivantes.

1. $4x^2 + 24x + 32 = 0$
2. $x^2 + x - 72 = 0$
3. $2x^2 + 11x + 9 = 0$
4. $4x^2 + 14x - 18 = 0$
5. $2x^2 - 20x + 18 = 0$
6. $2x^2 + x - 15 = 0$
7. $2x^2 + 13x + 20 = 0$
8. $2x^2 - 15x + 7 = 0$
9. $x^2 - x - 42 = 0$
10. $4x^2 + 26x + 40 = 0$
11. $4x^2 - 12x - 16 = 0$
12. $4x^2 - 8x + 3 = 0$

Résolution d'Équations Quadratiques (J) Réponses

Calculer les solutions des équations suivantes.

1. $4x^2 + 24x + 32 = 0$
   $(2x + 4)(2x + 8) = 0$
   $x = -2 \ , \ -4$

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

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

4. $4x^2 + 14x - 18 = 0$
   $(2x + 9)(2x - 2) = 0$
   $x = -4\ 1/2, \ 1$

5. $2x^2 - 20x + 18 = 0$
   $(x - 9)(2x - 2) = 0$
   $x = 9 \ , \ 1$

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

7. $2x^2 + 13x + 20 = 0$
   $(2x + 5)(x + 4) = 0$
   $x = -2\ 1/2, \ -4$

8. $2x^2 - 15x + 7 = 0$
   $(2x - 1)(x - 7) = 0$
   $x = \ 1/2, \ 7$

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

10. $4x^2 + 26x + 40 = 0$
    $(2x + 5)(2x + 8) = 0$
    $x = -2\ 1/2, \ -4$

11. $4x^2 - 12x - 16 = 0$
    $(2x + 2)(2x - 8) = 0$
    $x = -1 \ , \ 4$

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