

Solving Quadratic Equations (F)

Solve each equation for x

1. $-42x^2 - 62x - 9 = 7$

7. $-12x^2 + 40x - 22 = 10$

2. $36x^2 + 53x - 23 = 40$

8. $21x^2 + 39x - 4 = 2$

3. $56x^2 + 21x - 12 = 23$

9. $2x^2 + 16x + 11 = -3$

4. $-16x^2 + 14x + 1 = -1$

10. $-36x^2 - 73x = -18$

5. $40x^2 - 43x - 3 = 3$

11. $-40x^2 + 44x + 15 = -17$

6. $-6x^2 - 32x + 16 = -8$

12. $10x^2 - 30x = -20$

Solving Quadratic Equations (F) Answers

Solve each equation for x

1. $-42x^2 - 62x - 9 = 7$
 $-42x^2 - 62x - 16 = 0$
 $-(6x + 2)(7x + 8) = 0$
 $x = -1/3, -1\ 1/7$

2. $36x^2 + 53x - 23 = 40$
 $36x^2 + 53x - 63 = 0$
 $(9x - 7)(4x + 9) = 0$
 $x = 7/9, -2\ 1/4$

3. $56x^2 + 21x - 12 = 23$
 $56x^2 + 21x - 35 = 0$
 $(8x - 5)(7x + 7) = 0$
 $x = 5/8, -1$

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

5. $40x^2 - 43x - 3 = 3$
 $40x^2 - 43x - 6 = 0$
 $(8x + 1)(5x - 6) = 0$
 $x = -1/8, 1\ 1/5$

6. $-6x^2 - 32x + 16 = -8$
 $-6x^2 - 32x + 24 = 0$
 $(x + 6)(6x - 4) = 0$
 $x = -6, 2/3$

7. $-12x^2 + 40x - 22 = 10$
 $-12x^2 + 40x - 32 = 0$
 $-(4x - 8)(3x - 4) = 0$
 $x = 2, 1\ 1/3$

8. $21x^2 + 39x - 4 = 2$
 $21x^2 + 39x - 6 = 0$
 $(7x - 1)(3x + 6) = 0$
 $x = 1/7, -2$

9. $2x^2 + 16x + 11 = -3$
 $2x^2 + 16x + 14 = 0$
 $(x + 7)(2x + 2) = 0$
 $x = -7, -1$

10. $-36x^2 - 73x = -18$
 $-36x^2 - 73x + 18 = 0$
 $-(4x + 9)(9x - 2) = 0$
 $x = -2\ 1/4, 2/9$

11. $-40x^2 + 44x + 15 = -17$
 $-40x^2 + 44x + 32 = 0$
 $-(5x - 8)(8x + 4) = 0$
 $x = 1\ 3/5, -1/2$

12. $10x^2 - 30x = -20$
 $10x^2 - 30x + 20 = 0$
 $(5x - 5)(2x - 4) = 0$
 $x = 1, 2$