

Solving Quadratic Equations (H)

Solve each equation for x

1. $6x^2 - 53x - 8 = 1$

7. $-9x^2 + 18x + 7 = -20$

2. $14x^2 - 14x - 20 = 8$

8. $12x^2 + 58x + 56 = 0$

3. $36x^2 - 34x - 2 = 28$

9. $5x^2 - 21x + 12 = -6$

4. $24x^2 - 38x + 2 = -8$

10. $-64x^2 - 96x - 12 = 20$

5. $-7x^2 + 52x - 20 = 1$

11. $-4x^2 + 4x + 48 = 0$

6. $8x^2 - 36x - 9 = 11$

12. $-2x^2 - 25x - 68 = 4$

Solving Quadratic Equations (H) Answers

Solve each equation for x

1. $6x^2 - 53x - 8 = 1$
 $6x^2 - 53x - 9 = 0$
 $(x - 9)(6x + 1) = 0$
 $x = 9, -1/6$

2. $14x^2 - 14x - 20 = 8$
 $14x^2 - 14x - 28 = 0$
 $(7x + 7)(2x - 4) = 0$
 $x = -1, 2$

3. $36x^2 - 34x - 2 = 28$
 $36x^2 - 34x - 30 = 0$
 $(9x + 5)(4x - 6) = 0$
 $x = -5/9, 1\ 1/2$

4. $24x^2 - 38x + 2 = -8$
 $24x^2 - 38x + 10 = 0$
 $(6x - 2)(4x - 5) = 0$
 $x = 1/3, 1\ 1/4$

5. $-7x^2 + 52x - 20 = 1$
 $-7x^2 + 52x - 21 = 0$
 $(x - 7)(7x - 3) = 0$
 $x = 7, 3/7$

6. $8x^2 - 36x - 9 = 11$
 $8x^2 - 36x - 20 = 0$
 $(x - 5)(8x + 4) = 0$
 $x = 5, -1/2$

7. $-9x^2 + 18x + 7 = -20$
 $-9x^2 + 18x + 27 = 0$
 $-(9x + 9)(x - 3) = 0$
 $x = -1, 3$

8. $12x^2 + 58x + 56 = 0$
 $12x^2 + 58x + 56 = 0$
 $(6x + 8)(2x + 7) = 0$
 $x = -1\ 1/3, -3\ 1/2$

9. $5x^2 - 21x + 12 = -6$
 $5x^2 - 21x + 18 = 0$
 $(5x - 6)(x - 3) = 0$
 $x = 1\ 1/5, 3$

10. $-64x^2 - 96x - 12 = 20$
 $-64x^2 - 96x - 32 = 0$
 $-(8x + 4)(8x + 8) = 0$
 $x = -1/2, -1$

11. $-4x^2 + 4x + 48 = 0$
 $-4x^2 + 4x + 48 = 0$
 $-(2x + 6)(2x - 8) = 0$
 $x = -3, 4$

12. $-2x^2 - 25x - 68 = 4$
 $-2x^2 - 25x - 72 = 0$
 $-(x + 8)(2x + 9) = 0$
 $x = -8, -4\ 1/2$