

Solving Quadratic Equations (I)

Name: _____

Date: _____

Solve each equation for x.

1. $-4x^2 - 5x + 21 = 0$

11. $3x^2 + x - 14 = 0$

2. $3x^2 - 25x + 8 = 0$

12. $x^2 - x - 12 = 0$

3. $x^2 - x - 56 = 0$

13. $-4x^2 - 16x - 7 = 0$

4. $4x^2 - 3x - 10 = 0$

14. $-x^2 + 11x - 18 = 0$

5. $-2x^2 - 11x + 63 = 0$

15. $2x^2 - 9x + 4 = 0$

6. $2x^2 + 9x - 5 = 0$

16. $4x^2 - 19x + 12 = 0$

7. $-3x^2 + 10x + 8 = 0$

17. $-3x^2 + x + 24 = 0$

8. $-3x^2 + 7x - 4 = 0$

18. $-4x^2 + 8x - 3 = 0$

9. $x^2 - 14x + 49 = 0$

19. $4x^2 + 20x + 21 = 0$

10. $-3x^2 + 19x - 6 = 0$

20. $-2x^2 + 3x + 27 = 0$

Solving Quadratic Equations (I) Answers

Name: _____

Date: _____

Solve each equation for x.

1. $-4x^2 - 5x + 21 = 0$
 $-(4x - 7)(x + 3) = 0$
 $x = 1\frac{3}{4}, -3$

2. $3x^2 - 25x + 8 = 0$
 $(x - 8)(3x - 1) = 0$
 $x = 8, \frac{1}{3}$

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

4. $4x^2 - 3x - 10 = 0$
 $(x - 2)(4x + 5) = 0$
 $x = 2, -1\frac{1}{4}$

5. $-2x^2 - 11x + 63 = 0$
 $-(x + 9)(2x - 7) = 0$
 $x = -9, 3\frac{1}{2}$

6. $2x^2 + 9x - 5 = 0$
 $(2x - 1)(x + 5) = 0$
 $x = \frac{1}{2}, -5$

7. $-3x^2 + 10x + 8 = 0$
 $-(3x + 2)(x - 4) = 0$
 $x = -\frac{2}{3}, 4$

8. $-3x^2 + 7x - 4 = 0$
 $-(x - 1)(3x - 4) = 0$
 $x = 1, 1\frac{1}{3}$

9. $x^2 - 14x + 49 = 0$
 $(x - 7)(x - 7) = (x - 7)^2 = 0$
 $x = 7$

10. $-3x^2 + 19x - 6 = 0$
 $-(x - 6)(3x - 1) = 0$
 $x = 6, \frac{1}{3}$

11. $3x^2 + x - 14 = 0$
 $(3x + 7)(x - 2) = 0$
 $x = -2\frac{1}{3}, 2$

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

13. $-4x^2 - 16x - 7 = 0$
 $-(2x + 7)(2x + 1) = 0$
 $x = -3\frac{1}{2}, -\frac{1}{2}$

14. $-x^2 + 11x - 18 = 0$
 $-(x - 2)(x - 9) = 0$
 $x = 2, 9$

15. $2x^2 - 9x + 4 = 0$
 $(2x - 1)(x - 4) = 0$
 $x = \frac{1}{2}, 4$

16. $4x^2 - 19x + 12 = 0$
 $(4x - 3)(x - 4) = 0$
 $x = \frac{3}{4}, 4$

17. $-3x^2 + x + 24 = 0$
 $-(x - 3)(3x + 8) = 0$
 $x = 3, -2\frac{2}{3}$

18. $-4x^2 + 8x - 3 = 0$
 $-(2x - 1)(2x - 3) = 0$
 $x = \frac{1}{2}, 1\frac{1}{2}$

19. $4x^2 + 20x + 21 = 0$
 $(2x + 7)(2x + 3) = 0$
 $x = -3\frac{1}{2}, -1\frac{1}{2}$

20. $-2x^2 + 3x + 27 = 0$
 $-(x + 3)(2x - 9) = 0$
 $x = -3, 4\frac{1}{2}$