

Solving Quadratic Equations (I)

Name: _____

Date: _____

Solve each equation for x.

1. $-2x^2 + 3x + 2 = 0$

11. $8x^2 + 35x + 12 = 0$

2. $-9x^2 - 14x + 8 = 0$

12. $-5x^2 - 16x - 3 = 0$

3. $6x^2 + 5x - 56 = 0$

13. $-8x^2 + 65x + 63 = 0$

4. $3x^2 - 28x + 9 = 0$

14. $6x^2 - 5x + 1 = 0$

5. $6x^2 - 13x + 2 = 0$

15. $2x^2 - 9x - 18 = 0$

6. $-6x^2 + 37x + 35 = 0$

16. $-4x^2 - 8x + 21 = 0$

7. $-3x^2 - 5x - 2 = 0$

17. $-9x^2 + 49 = 0$

8. $8x^2 + 54x + 81 = 0$

18. $-4x^2 + 9 = 0$

9. $2x^2 - 19x + 24 = 0$

19. $-6x^2 - 13x - 5 = 0$

10. $9x^2 - 76x - 45 = 0$

20. $2x^2 + 13x + 20 = 0$

Solving Quadratic Equations (I) Answers

Name: _____

Date: _____

Solve each equation for x.

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

2. $-9x^2 - 14x + 8 = 0$
 $-(9x - 4)(x + 2) = 0$
 $x = \frac{4}{9}, -2$

3. $6x^2 + 5x - 56 = 0$
 $(2x + 7)(3x - 8) = 0$
 $x = -3\frac{1}{2}, 2\frac{2}{3}$

4. $3x^2 - 28x + 9 = 0$
 $(3x - 1)(x - 9) = 0$
 $x = \frac{1}{3}, 9$

5. $6x^2 - 13x + 2 = 0$
 $(6x - 1)(x - 2) = 0$
 $x = \frac{1}{6}, 2$

6. $-6x^2 + 37x + 35 = 0$
 $-(6x + 5)(x - 7) = 0$
 $x = -\frac{5}{6}, 7$

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

8. $8x^2 + 54x + 81 = 0$
 $(2x + 9)(4x + 9) = 0$
 $x = -4\frac{1}{2}, -2\frac{1}{4}$

9. $2x^2 - 19x + 24 = 0$
 $(x - 8)(2x - 3) = 0$
 $x = 8, 1\frac{1}{2}$

10. $9x^2 - 76x - 45 = 0$
 $(9x + 5)(x - 9) = 0$
 $x = -\frac{5}{9}, 9$

11. $8x^2 + 35x + 12 = 0$
 $(x + 4)(8x + 3) = 0$
 $x = -4, -\frac{3}{8}$

12. $-5x^2 - 16x - 3 = 0$
 $-(5x + 1)(x + 3) = 0$
 $x = -\frac{1}{5}, -3$

13. $-8x^2 + 65x + 63 = 0$
 $-(8x + 7)(x - 9) = 0$
 $x = -\frac{7}{8}, 9$

14. $6x^2 - 5x + 1 = 0$
 $(2x - 1)(3x - 1) = 0$
 $x = \frac{1}{2}, \frac{1}{3}$

15. $2x^2 - 9x - 18 = 0$
 $(2x + 3)(x - 6) = 0$
 $x = -1\frac{1}{2}, 6$

16. $-4x^2 - 8x + 21 = 0$
 $-(2x - 3)(2x + 7) = 0$
 $x = 1\frac{1}{2}, -3\frac{1}{2}$

17. $-9x^2 + 49 = 0$
 $-(3x + 7)(3x - 7) = 0$
 $x = -2\frac{1}{3}, 2\frac{1}{3}$

18. $-4x^2 + 9 = 0$
 $-(2x + 3)(2x - 3) = 0$
 $x = -1\frac{1}{2}, 1\frac{1}{2}$

19. $-6x^2 - 13x - 5 = 0$
 $-(3x + 5)(2x + 1) = 0$
 $x = -1\frac{2}{3}, -\frac{1}{2}$

20. $2x^2 + 13x + 20 = 0$
 $(x + 4)(2x + 5) = 0$
 $x = -4, -2\frac{1}{2}$