

Solving Quadratic Equations (C)

Name: _____

Date: _____

Solve each equation for x.

1. $6x^2 - 15x - 36 = 0$

11. $-10x^2 - 44x - 42 = 0$

2. $25x^2 - 35x - 120 = 0$

12. $-5x^2 - 5x + 10 = 0$

3. $-8x^2 + 30x + 8 = 0$

13. $-8x^2 + 26x - 6 = 0$

4. $-12x^2 - 40x - 32 = 0$

14. $20x^2 - 85x + 90 = 0$

5. $-20x^2 - 100x - 105 = 0$

15. $-12x^2 - 104x - 192 = 0$

6. $-10x^2 - 15x + 135 = 0$

16. $-6x^2 - 69x - 135 = 0$

7. $8x^2 + 66x - 54 = 0$

17. $-12x^2 - 8x + 84 = 0$

8. $-4x^2 + 30x + 54 = 0$

18. $-6x^2 + 33x - 15 = 0$

9. $6x^2 - 21x - 90 = 0$

19. $-6x^2 - 38x + 144 = 0$

10. $15x^2 + 85x + 120 = 0$

20. $-8x^2 + 162 = 0$

Solving Quadratic Equations (C) Answers

Name: _____

Date: _____

Solve each equation for x.

1. $6x^2 - 15x - 36 = 0$
 $3(x - 4)(2x + 3) = 0$
 $x = 4, -1\frac{1}{2}$

2. $25x^2 - 35x - 120 = 0$
 $5(5x + 8)(x - 3) = 0$
 $x = -1\frac{3}{5}, 3$

3. $-8x^2 + 30x + 8 = 0$
 $-2(x - 4)(4x + 1) = 0$
 $x = 4, -\frac{1}{4}$

4. $-12x^2 - 40x - 32 = 0$
 $-4(x + 2)(3x + 4) = 0$
 $x = -2, -1\frac{1}{3}$

5. $-20x^2 - 100x - 105 = 0$
 $-5(2x + 7)(2x + 3) = 0$
 $x = -3\frac{1}{2}, -1\frac{1}{2}$

6. $-10x^2 - 15x + 135 = 0$
 $-5(x - 3)(2x + 9) = 0$
 $x = 3, -4\frac{1}{2}$

7. $8x^2 + 66x - 54 = 0$
 $2(x + 9)(4x - 3) = 0$
 $x = -9, \frac{3}{4}$

8. $-4x^2 + 30x + 54 = 0$
 $-2(2x + 3)(x - 9) = 0$
 $x = -1\frac{1}{2}, 9$

9. $6x^2 - 21x - 90 = 0$
 $3(x - 6)(2x + 5) = 0$
 $x = 6, -2\frac{1}{2}$

10. $15x^2 + 85x + 120 = 0$
 $5(x + 3)(3x + 8) = 0$
 $x = -3, -2\frac{2}{3}$

11. $-10x^2 - 44x - 42 = 0$
 $-2(5x + 7)(x + 3) = 0$
 $x = -1\frac{2}{5}, -3$

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

13. $-8x^2 + 26x - 6 = 0$
 $-2(x - 3)(4x - 1) = 0$
 $x = 3, \frac{1}{4}$

14. $20x^2 - 85x + 90 = 0$
 $5(x - 2)(4x - 9) = 0$
 $x = 2, 2\frac{1}{4}$

15. $-12x^2 - 104x - 192 = 0$
 $-4(3x + 8)(x + 6) = 0$
 $x = -2\frac{2}{3}, -6$

16. $-6x^2 - 69x - 135 = 0$
 $-3(x + 9)(2x + 5) = 0$
 $x = -9, -2\frac{1}{2}$

17. $-12x^2 - 8x + 84 = 0$
 $-4(x + 3)(3x - 7) = 0$
 $x = -3, 2\frac{1}{3}$

18. $-6x^2 + 33x - 15 = 0$
 $-3(x - 5)(2x - 1) = 0$
 $x = 5, \frac{1}{2}$

19. $-6x^2 - 38x + 144 = 0$
 $-2(x + 9)(3x - 8) = 0$
 $x = -9, 2\frac{2}{3}$

20. $-8x^2 + 162 = 0$
 $-2(2x + 9)(2x - 9) = 0$
 $x = -4\frac{1}{2}, 4\frac{1}{2}$