

Solving Quadratic Equations (J)

Name: _____

Date: _____

Solve each equation for x.

1. $9x^2 - 57x + 84 = 0$

11. $15x^2 - 65x - 50 = 0$

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

12. $-6x^2 - 4x + 32 = 0$

3. $8x^2 - 2x - 28 = 0$

13. $-8x^2 - 74x - 18 = 0$

4. $-5x^2 - 10x + 120 = 0$

14. $-12x^2 + 75x - 108 = 0$

5. $12x^2 - 100x + 168 = 0$

15. $4x^2 - 14x + 6 = 0$

6. $-12x^2 + 39x + 36 = 0$

16. $2x^2 - 10x - 12 = 0$

7. $16x^2 - 48x + 20 = 0$

17. $4x^2 - 40x + 100 = 0$

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

18. $-10x^2 - 25x + 35 = 0$

9. $5x^2 + 5x - 210 = 0$

19. $-4x^2 - 18x - 18 = 0$

10. $-8x^2 - 8x + 6 = 0$

20. $12x^2 + 32x + 20 = 0$

Solving Quadratic Equations (J) Answers

Name: _____

Date: _____

Solve each equation for x.

1. $9x^2 - 57x + 84 = 0$
 $3(3x - 7)(x - 4) = 0$
 $x = 2\frac{1}{3}, 4$

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

3. $8x^2 - 2x - 28 = 0$
 $2(4x + 7)(x - 2) = 0$
 $x = -1\frac{3}{4}, 2$

4. $-5x^2 - 10x + 120 = 0$
 $-5(x + 6)(x - 4) = 0$
 $x = -6, 4$

5. $12x^2 - 100x + 168 = 0$
 $4(3x - 7)(x - 6) = 0$
 $x = 2\frac{1}{3}, 6$

6. $-12x^2 + 39x + 36 = 0$
 $-3(x - 4)(4x + 3) = 0$
 $x = 4, -\frac{3}{4}$

7. $16x^2 - 48x + 20 = 0$
 $4(2x - 5)(2x - 1) = 0$
 $x = 2\frac{1}{2}, \frac{1}{2}$

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

9. $5x^2 + 5x - 210 = 0$
 $5(x - 6)(x + 7) = 0$
 $x = 6, -7$

10. $-8x^2 - 8x + 6 = 0$
 $-2(2x + 3)(2x - 1) = 0$
 $x = -1\frac{1}{2}, \frac{1}{2}$

11. $15x^2 - 65x - 50 = 0$
 $5(x - 5)(3x + 2) = 0$
 $x = 5, -\frac{2}{3}$

12. $-6x^2 - 4x + 32 = 0$
 $-2(3x + 8)(x - 2) = 0$
 $x = -2\frac{2}{3}, 2$

13. $-8x^2 - 74x - 18 = 0$
 $-2(x + 9)(4x + 1) = 0$
 $x = -9, -\frac{1}{4}$

14. $-12x^2 + 75x - 108 = 0$
 $-3(4x - 9)(x - 4) = 0$
 $x = 2\frac{1}{4}, 4$

15. $4x^2 - 14x + 6 = 0$
 $2(x - 3)(2x - 1) = 0$
 $x = 3, \frac{1}{2}$

16. $2x^2 - 10x - 12 = 0$
 $2(x + 1)(x - 6) = 0$
 $x = -1, 6$

17. $4x^2 - 40x + 100 = 0$
 $4(x - 5)(x - 5) = 4(x - 5)^2 = 0$
 $x = 5$

18. $-10x^2 - 25x + 35 = 0$
 $-5(2x + 7)(x - 1) = 0$
 $x = -3\frac{1}{2}, 1$

19. $-4x^2 - 18x - 18 = 0$
 $-2(x + 3)(2x + 3) = 0$
 $x = -3, -1\frac{1}{2}$

20. $12x^2 + 32x + 20 = 0$
 $4(x + 1)(3x + 5) = 0$
 $x = -1, -1\frac{2}{3}$