Solving Quadratic Equations (D)

Name: _____

Date: _____

Solve each equation for x.

1. $8x^2 + 10x - 7 = 0$

2. $5x^2 + 43x - 18 = 0$

3. $9x^2 - 27x + 8 = 0$

4. $9x^2 - 62x + 48 = 0$

5. $4x^2 + 12x - 27 = 0$

6. $5x^2 - 24x + 27 = 0$

7. $9x^2 - 3x - 2 = 0$

8. $6x^2 - 11x - 2 = 0$

9. $8x^2 - 79x + 63 = 0$

10. $6x^2 - 19x - 20 = 0$

11. $9x^2 - 47x - 42 = 0$

12. $7x^2 - 20x - 32 = 0$

13. $4x^2 - 21x + 20 = 0$

14. $9x^2 - 9x - 40 = 0$

15. $8x^2 + 2x - 1 = 0$

16. $4x^2 - 9 = 0$

17. $8x^2 - 26x + 15 = 0$

18. $7x^2 + 22x + 3 = 0$

19. $9x^2 + 61x + 42 = 0$

20. $2x^2 + 15x - 27 = 0$

Solving Quadratic Equations (D) Answers

Name: _____

Date: _____

Solve each equation for x.

1. $8x^2 + 10x - 7 = 0$
   $(2x - 1)(4x + 7) = 0$
   $x = \frac{1}{2}, -1\frac{3}{4}$

2. $5x^2 + 43x - 18 = 0$
   $(x + 9)(5x - 2) = 0$
   $x = -9, \frac{2}{5}$

3. $9x^2 - 27x + 8 = 0$
   $(3x - 8)(3x - 1) = 0$
   $x = 2\frac{2}{3}, \frac{1}{3}$

4. $9x^2 - 62x + 48 = 0$
   $(9x - 8)(x - 6) = 0$
   $x = \frac{8}{9}, 6$

5. $4x^2 + 12x - 27 = 0$
   $(2x - 3)(2x + 9) = 0$
   $x = 1\frac{1}{2}, -4\frac{1}{2}$

6. $5x^2 - 24x + 27 = 0$
   $(x - 3)(5x - 9) = 0$
   $x = 3, 1\frac{4}{5}$

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

8. $6x^2 - 11x - 2 = 0$
   $(x - 2)(6x + 1) = 0$
   $x = 2, -\frac{1}{6}$

9. $8x^2 - 79x + 63 = 0$
   $(8x - 7)(x - 9) = 0$
   $x = \frac{7}{8}, 9$

10. $6x^2 - 19x - 20 = 0$
    $(6x + 5)(x - 4) = 0$
    $x = -\frac{5}{6}, 4$

11. $9x^2 - 47x - 42 = 0$
    $(9x + 7)(x - 6) = 0$
    $x = -\frac{7}{9}, 6$

12. $7x^2 - 20x - 32 = 0$
    $(x - 4)(7x + 8) = 0$
    $x = 4, -1\frac{1}{7}$

13. $4x^2 - 21x + 20 = 0$
    $(x - 4)(4x - 5) = 0$
    $x = 4, 1\frac{1}{4}$

14. $9x^2 - 9x - 40 = 0$
    $(3x - 8)(3x + 5) = 0$
    $x = 2\frac{2}{3}, -1\frac{2}{3}$

15. $8x^2 + 2x - 1 = 0$
    $(2x + 1)(4x - 1) = 0$
    $x = -\frac{1}{2}, \frac{1}{4}$

16. $4x^2 - 9 = 0$
    $(2x + 3)(2x - 3) = 0$
    $x = -1\frac{1}{2}, 1\frac{1}{2}$

17. $8x^2 - 26x + 15 = 0$
    $(2x - 5)(4x - 3) = 0$
    $x = 2\frac{1}{2}, \frac{3}{4}$

18. $7x^2 + 22x + 3 = 0$
    $(7x + 1)(x + 3) = 0$
    $x = -\frac{1}{7}, -3$

19. $9x^2 + 61x + 42 = 0$
    $(x + 6)(9x + 7) = 0$
    $x = -6, -\frac{7}{9}$

20. $2x^2 + 15x - 27 = 0$
    $(2x - 3)(x + 9) = 0$
    $x = 1\frac{1}{2}, -9$