Solving Quadratic Equations (F)

Name:_____

Date:_____

Solve each equation for x.

1. $-3x^2 - 20x + 32 = 0$

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

3. $-4x^2 + 19x + 5 = 0$

4. $x^2 + 10x + 16 = 0$

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

6. $-4x^2 + 43x - 63 = 0$

7. $-4x^2 + 37x - 63 = 0$

8. $2x^2 - 5x - 18 = 0$

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

10. $-2x^2 - 23x - 56 = 0$

11. $-2x^2 + 11x - 12 = 0$

12. $4x^2 + 23x - 6 = 0$

13. $x^2 + 6x - 27 = 0$

14. $2x^2 + 15x + 25 = 0$

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

16. $-4x^2 + 49 = 0$

17. $4x^2 - 11x - 45 = 0$

18. $-3x^2 + 32x - 45 = 0$

19. $-4x^2 - 39x - 27 = 0$

20. $-4x^2 - 24x - 27 = 0$

Solving Quadratic Equations (F) Answers

Name: _____

Date: _____

Solve each equation for x.

1. $-3x^2 - 20x + 32 = 0$
   $-(3x - 4)(x + 8) = 0$
   $x = 1\frac{1}{3}, -8$

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

3. $-4x^2 + 19x + 5 = 0$
   $-(4x + 1)(x - 5) = 0$
   $x = -\frac{1}{4}, 5$

4. $x^2 + 10x + 16 = 0$
   $(x + 2)(x + 8) = 0$
   $x = -2, -8$

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

6. $-4x^2 + 43x - 63 = 0$
   $-(4x - 7)(x - 9) = 0$
   $x = 1\frac{3}{4}, 9$

7. $-4x^2 + 37x - 63 = 0$
   $-(4x - 9)(x - 7) = 0$
   $x = 2\frac{1}{4}, 7$

8. $2x^2 - 5x - 18 = 0$
   $(x + 2)(2x - 9) = 0$
   $x = -2, 4\frac{1}{2}$

9. $-x^2 - 4x - 3 = 0$
   $-(x + 1)(x + 3) = 0$
   $x = -1, -3$

10. $-2x^2 - 23x - 56 = 0$
    $-(2x + 7)(x + 8) = 0$
    $x = -3\frac{1}{2}, -8$

11. $-2x^2 + 11x - 12 = 0$
    $-(2x - 3)(x - 4) = 0$
    $x = 1\frac{1}{2}, 4$

12. $4x^2 + 23x - 6 = 0$
    $(x + 6)(4x - 1) = 0$
    $x = -6, \frac{1}{4}$

13. $x^2 + 6x - 27 = 0$
    $(x - 3)(x + 9) = 0$
    $x = 3, -9$

14. $2x^2 + 15x + 25 = 0$
    $(x + 5)(2x + 5) = 0$
    $x = -5, -2\frac{1}{2}$

15. $-x^2 + x + 6 = 0$
    $-(x - 3)(x + 2) = 0$
    $x = 3, -2$

16. $-4x^2 + 49 = 0$
    $-(2x + 7)(2x - 7) = 0$
    $x = -3\frac{1}{2}, 3\frac{1}{2}$

17. $4x^2 - 11x - 45 = 0$
    $(x - 5)(4x + 9) = 0$
    $x = 5, -2\frac{1}{4}$

18. $-3x^2 + 32x - 45 = 0$
    $-(x - 9)(3x - 5) = 0$
    $x = 9, 1\frac{2}{3}$

19. $-4x^2 - 39x - 27 = 0$
    $-(x + 9)(4x + 3) = 0$
    $x = -9, -\frac{3}{4}$

20. $-4x^2 - 24x - 27 = 0$
    $-(2x + 9)(2x + 3) = 0$
    $x = -4\frac{1}{2}, -1\frac{1}{2}$

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