Solving Quadratic Equations (F)

Name: _____ Date: _____

Solve each equation for x.

1. $15x^2 + 53x + 42 = 0$
2. $16x^2 + 22x - 45 = 0$
3. $20x^2 - 9x + 1 = 0$
4. $24x^2 + 29x - 4 = 0$
5. $7x^2 - 33x - 10 = 0$
6. $21x^2 + 65x + 24 = 0$
7. $4x^2 - 29x - 24 = 0$
8. $72x^2 + 79x + 14 = 0$
9. $72x^2 + x - 56 = 0$
10. $27x^2 + 60x + 25 = 0$
11. $18x^2 + 3x - 1 = 0$
12. $14x^2 - 31x - 10 = 0$
13. $4x^2 - 16x - 9 = 0$
14. $12x^2 - 19x + 4 = 0$
15. $20x^2 + 9x + 1 = 0$
16. $36x^2 - 5x - 24 = 0$
17. $x^2 + 11x + 24 = 0$
18. $16x^2 + 78x + 27 = 0$
19. $16x^2 + 30x + 9 = 0$
20. $8x^2 + 79x + 63 = 0$

Solving Quadratic Equations (F) Answers

Name: _____ Date: _____

Solve each equation for x.

1. $15x^2 + 53x + 42 = 0$
   $(5x + 6)(3x + 7) = 0$
   $x = -1\frac{1}{5}, -2\frac{1}{3}$

2. $16x^2 + 22x - 45 = 0$
   $(2x + 5)(8x - 9) = 0$
   $x = -2\frac{1}{2}, 1\frac{1}{8}$

3. $20x^2 - 9x + 1 = 0$
   $(4x - 1)(5x - 1) = 0$
   $x = \frac{1}{4}, \frac{1}{5}$

4. $24x^2 + 29x - 4 = 0$
   $(3x + 4)(8x - 1) = 0$
   $x = -1\frac{1}{3}, \frac{1}{8}$

5. $7x^2 - 33x - 10 = 0$
   $(x - 5)(7x + 2) = 0$
   $x = 5, -\frac{2}{7}$

6. $21x^2 + 65x + 24 = 0$
   $(3x + 8)(7x + 3) = 0$
   $x = -2\frac{2}{3}, -\frac{3}{7}$

7. $4x^2 - 29x - 24 = 0$
   $(4x + 3)(x - 8) = 0$
   $x = -\frac{3}{4}, 8$

8. $72x^2 + 79x + 14 = 0$
   $(9x + 2)(8x + 7) = 0$
   $x = -\frac{2}{9}, -\frac{7}{8}$

9. $72x^2 + x - 56 = 0$
   $(9x + 8)(8x - 7) = 0$
   $x = -\frac{8}{9}, \frac{7}{8}$

10. $27x^2 + 60x + 25 = 0$
    $(3x + 5)(9x + 5) = 0$
    $x = -1\frac{2}{3}, -\frac{5}{9}$

11. $18x^2 + 3x - 1 = 0$
    $(3x + 1)(6x - 1) = 0$
    $x = -\frac{1}{3}, \frac{1}{6}$

12. $14x^2 - 31x - 10 = 0$
    $(7x + 2)(2x - 5) = 0$
    $x = -\frac{2}{7}, 2\frac{1}{2}$

13. $4x^2 - 16x - 9 = 0$
    $(2x + 1)(2x - 9) = 0$
    $x = -\frac{1}{2}, 4\frac{1}{2}$

14. $12x^2 - 19x + 4 = 0$
    $(3x - 4)(4x - 1) = 0$
    $x = 1\frac{1}{3}, \frac{1}{4}$

15. $20x^2 + 9x + 1 = 0$
    $(5x + 1)(4x + 1) = 0$
    $x = -\frac{1}{5}, -\frac{1}{4}$

16. $36x^2 - 5x - 24 = 0$
    $(4x + 3)(9x - 8) = 0$
    $x = -\frac{3}{4}, \frac{8}{9}$

17. $x^2 + 11x + 24 = 0$
    $(x + 3)(x + 8) = 0$
    $x = -3, -8$

18. $16x^2 + 78x + 27 = 0$
    $(8x + 3)(2x + 9) = 0$
    $x = -\frac{3}{8}, -4\frac{1}{2}$

19. $16x^2 + 30x + 9 = 0$
    $(8x + 3)(2x + 3) = 0$
    $x = -\frac{3}{8}, -1\frac{1}{2}$

20. $8x^2 + 79x + 63 = 0$
    $(8x + 7)(x + 9) = 0$
    $x = -\frac{7}{8}, -9$