Solving Quadratic Equations (F)

Name:_____   Date:_____

Solve each equation for x.

1. $6x^2 + 5x - 56 = 0$

2. $8x^2 - 47x - 63 = 0$

3. $6x^2 - 13x - 15 = 0$

4. $7x^2 + 2x - 5 = 0$

5. $7x^2 + 37x + 10 = 0$

6. $3x^2 - 32x + 45 = 0$

7. $9x^2 - 18x + 8 = 0$

8. $6x^2 - 11x + 5 = 0$

9. $6x^2 - 41x - 56 = 0$

10. $9x^2 - 29x - 28 = 0$

11. $x^2 - 4x + 4 = 0$

12. $8x^2 - 45x - 18 = 0$

13. $7x^2 + 46x + 24 = 0$

14. $3x^2 - 8x - 35 = 0$

15. $6x^2 + 23x + 7 = 0$

16. $3x^2 + 10x + 3 = 0$

17. $7x^2 + 12x + 5 = 0$

18. $6x^2 - 11x - 72 = 0$

19. $8x^2 + 38x + 9 = 0$

20. $9x^2 + 70x - 16 = 0$

Solving Quadratic Equations (F) Answers

Name: _____

Date: _____

Solve each equation for x.

1. $6x^2 + 5x - 56 = 0$
   $(2x + 7)(3x - 8) = 0$
   $x = -3\frac{1}{2}, 2\frac{2}{3}$

2. $8x^2 - 47x - 63 = 0$
   $(8x + 9)(x - 7) = 0$
   $x = -1\frac{1}{8}, 7$

3. $6x^2 - 13x - 15 = 0$
   $(x - 3)(6x + 5) = 0$
   $x = 3, -\frac{5}{6}$

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

5. $7x^2 + 37x + 10 = 0$
   $(x + 5)(7x + 2) = 0$
   $x = -5, -\frac{2}{7}$

6. $3x^2 - 32x + 45 = 0$
   $(x - 9)(3x - 5) = 0$
   $x = 9, 1\frac{2}{3}$

7. $9x^2 - 18x + 8 = 0$
   $(3x - 2)(3x - 4) = 0$
   $x = \frac{2}{3}, 1\frac{1}{3}$

8. $6x^2 - 11x + 5 = 0$
   $(x - 1)(6x - 5) = 0$
   $x = 1, \frac{5}{6}$

9. $6x^2 - 41x - 56 = 0$
   $(6x + 7)(x - 8) = 0$
   $x = -1\frac{1}{6}, 8$

10. $9x^2 - 29x - 28 = 0$
    $(x - 4)(9x + 7) = 0$
    $x = 4, -\frac{7}{9}$

11. $x^2 - 4x + 4 = 0$
    $(x - 2)(x - 2) = (x - 2)^2 = 0$
    $x = 2$

12. $8x^2 - 45x - 18 = 0$
    $(x - 6)(8x + 3) = 0$
    $x = 6, -\frac{3}{8}$

13. $7x^2 + 46x + 24 = 0$
    $(7x + 4)(x + 6) = 0$
    $x = -\frac{4}{7}, -6$

14. $3x^2 - 8x - 35 = 0$
    $(3x + 7)(x - 5) = 0$
    $x = -2\frac{1}{3}, 5$

15. $6x^2 + 23x + 7 = 0$
    $(2x + 7)(3x + 1) = 0$
    $x = -3\frac{1}{2}, -\frac{1}{3}$

16. $3x^2 + 10x + 3 = 0$
    $(x + 3)(3x + 1) = 0$
    $x = -3, -\frac{1}{3}$

17. $7x^2 + 12x + 5 = 0$
    $(x + 1)(7x + 5) = 0$
    $x = -1, -\frac{5}{7}$

18. $6x^2 - 11x - 72 = 0$
    $(2x - 9)(3x + 8) = 0$
    $x = 4\frac{1}{2}, -2\frac{2}{3}$

19. $8x^2 + 38x + 9 = 0$
    $(2x + 9)(4x + 1) = 0$
    $x = -4\frac{1}{2}, -\frac{1}{4}$

20. $9x^2 + 70x - 16 = 0$
    $(9x - 2)(x + 8) = 0$
    $x = \frac{2}{9}, -8$