Solving Quadratic Equations (J)

Name: _____ Date: _____

Solve each equation for x.

1. $3x^2 - 20x - 63 = 0$
2. $9x^2 - 67x - 40 = 0$
3. $9x^2 - 38x - 35 = 0$
4. $6x^2 - 11x - 72 = 0$
5. $3x^2 - x - 4 = 0$
6. $2x^2 - 15x - 8 = 0$
7. $5x^2 - 3x - 2 = 0$
8. $4x^2 - 17x + 18 = 0$
9. $3x^2 - 4x + 1 = 0$
10. $3x^2 + 7x - 40 = 0$
11. $5x^2 + 41x - 36 = 0$
12. $4x^2 + 16x + 7 = 0$
13. $5x^2 - 19x + 12 = 0$
14. $9x^2 + 62x + 48 = 0$
15. $x^2 - 5x - 14 = 0$
16. $2x^2 + 13x + 18 = 0$
17. $3x^2 - x - 14 = 0$
18. $4x^2 - 25 = 0$
19. $8x^2 + 34x + 21 = 0$
20. $6x^2 - 19x + 15 = 0$

Solving Quadratic Equations (J) Answers

Name: _____ Date: _____

Solve each equation for x.

1. $3x^2 - 20x - 63 = 0$
   $(3x + 7)(x - 9) = 0$
   $x = -2\frac{1}{3}, 9$

2. $9x^2 - 67x - 40 = 0$
   $(9x + 5)(x - 8) = 0$
   $x = -\frac{5}{9}, 8$

3. $9x^2 - 38x - 35 = 0$
   $(9x + 7)(x - 5) = 0$
   $x = -\frac{7}{9}, 5$

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

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

6. $2x^2 - 15x - 8 = 0$
   $(x - 8)(2x + 1) = 0$
   $x = 8, -\frac{1}{2}$

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

8. $4x^2 - 17x + 18 = 0$
   $(x - 2)(4x - 9) = 0$
   $x = 2, 2\frac{1}{4}$

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

10. $3x^2 + 7x - 40 = 0$
    $(3x - 8)(x + 5) = 0$
    $x = 2\frac{2}{3}, -5$

11. $5x^2 + 41x - 36 = 0$
    $(x + 9)(5x - 4) = 0$
    $x = -9, \frac{4}{5}$

12. $4x^2 + 16x + 7 = 0$
    $(2x + 1)(2x + 7) = 0$
    $x = -\frac{1}{2}, -3\frac{1}{2}$

13. $5x^2 - 19x + 12 = 0$
    $(5x - 4)(x - 3) = 0$
    $x = \frac{4}{5}, 3$

14. $9x^2 + 62x + 48 = 0$
    $(9x + 8)(x + 6) = 0$
    $x = -\frac{8}{9}, -6$

15. $x^2 - 5x - 14 = 0$
    $(x + 2)(x - 7) = 0$
    $x = -2, 7$

16. $2x^2 + 13x + 18 = 0$
    $(2x + 9)(x + 2) = 0$
    $x = -4\frac{1}{2}, -2$

17. $3x^2 - x - 14 = 0$
    $(3x - 7)(x + 2) = 0$
    $x = 2\frac{1}{3}, -2$

18. $4x^2 - 25 = 0$
    $(2x - 5)(2x + 5) = 0$
    $x = 2\frac{1}{2}, -2\frac{1}{2}$

19. $8x^2 + 34x + 21 = 0$
    $(2x + 7)(4x + 3) = 0$
    $x = -3\frac{1}{2}, -\frac{3}{4}$

20. $6x^2 - 19x + 15 = 0$
    $(3x - 5)(2x - 3) = 0$
    $x = 1\frac{2}{3}, 1\frac{1}{2}$