Solving Quadratic Equations (I)

Name: _____ Date: _____

Solve each equation for x.

1. $25x^2 + 60x + 35 = 0$
2. $-15x^2 - 130x - 175 = 0$
3. $-15x^2 - 84x - 45 = 0$
4. $8x^2 + 12x - 216 = 0$
5. $20x^2 - 112x - 196 = 0$
6. $-8x^2 + 8x + 30 = 0$
7. $9x^2 + 48x - 36 = 0$
8. $-10x^2 - 72x - 72 = 0$
9. $12x^2 + 12x - 45 = 0$
10. $16x^2 - 132x - 108 = 0$
11. $-20x^2 - 145x - 35 = 0$
12. $-20x^2 + 65x - 15 = 0$
13. $16x^2 - 4x - 72 = 0$
14. $15x^2 - 55x + 50 = 0$
15. $12x^2 + 56x - 96 = 0$
16. $-6x^2 - 39x - 60 = 0$
17. $16x^2 + 32x - 20 = 0$
18. $20x^2 + 160x + 315 = 0$
19. $-8x^2 + 38x + 126 = 0$
20. $15x^2 + 85x + 100 = 0$

Solving Quadratic Equations (I) Answers

Name: _____ Date: _____

Solve each equation for x.

1. $25x^2 + 60x + 35 = 0$
   $5(5x + 7)(x + 1) = 0$
   $x = -1\frac{2}{5}, -1$

2. $-15x^2 - 130x - 175 = 0$
   $-5(3x + 5)(x + 7) = 0$
   $x = -1\frac{2}{3}, -7$

3. $-15x^2 - 84x - 45 = 0$
   $-3(5x + 3)(x + 5) = 0$
   $x = -\frac{3}{5}, -5$

4. $8x^2 + 12x - 216 = 0$
   $4(x + 6)(2x - 9) = 0$
   $x = -6, 4\frac{1}{2}$

5. $20x^2 - 112x - 196 = 0$
   $4(5x + 7)(x - 7) = 0$
   $x = -1\frac{2}{5}, 7$

6. $-8x^2 + 8x + 30 = 0$
   $-2(2x + 3)(2x - 5) = 0$
   $x = -1\frac{1}{2}, 2\frac{1}{2}$

7. $9x^2 + 48x - 36 = 0$
   $3(x + 6)(3x - 2) = 0$
   $x = -6, \frac{2}{3}$

8. $-10x^2 - 72x - 72 = 0$
   $-2(5x + 6)(x + 6) = 0$
   $x = -1\frac{1}{5}, -6$

9. $12x^2 + 12x - 45 = 0$
   $3(2x - 3)(2x + 5) = 0$
   $x = 1\frac{1}{2}, -2\frac{1}{2}$

10. $16x^2 - 132x - 108 = 0$
    $4(4x + 3)(x - 9) = 0$
    $x = -\frac{3}{4}, 9$

11. $-20x^2 - 145x - 35 = 0$
    $-5(x + 7)(4x + 1) = 0$
    $x = -7, -\frac{1}{4}$

12. $-20x^2 + 65x - 15 = 0$
    $-5(4x - 1)(x - 3) = 0$
    $x = \frac{1}{4}, 3$

13. $16x^2 - 4x - 72 = 0$
    $4(x + 2)(4x - 9) = 0$
    $x = -2, 2\frac{1}{4}$

14. $15x^2 - 55x + 50 = 0$
    $5(3x - 5)(x - 2) = 0$
    $x = 1\frac{2}{3}, 2$

15. $12x^2 + 56x - 96 = 0$
    $4(x + 6)(3x - 4) = 0$
    $x = -6, 1\frac{1}{3}$

16. $-6x^2 - 39x - 60 = 0$
    $-3(2x + 5)(x + 4) = 0$
    $x = -2\frac{1}{2}, -4$

17. $16x^2 + 32x - 20 = 0$
    $4(2x + 5)(2x - 1) = 0$
    $x = -2\frac{1}{2}, \frac{1}{2}$

18. $20x^2 + 160x + 315 = 0$
    $5(2x + 7)(2x + 9) = 0$
    $x = -3\frac{1}{2}, -4\frac{1}{2}$

19. $-8x^2 + 38x + 126 = 0$
    $-2(4x + 9)(x - 7) = 0$
    $x = -2\frac{1}{4}, 7$

20. $15x^2 + 85x + 100 = 0$
    $5(3x + 5)(x + 4) = 0$
    $x = -1\frac{2}{3}, -4$