Solving Quadratic Equations (A)

Name: _____

Date: _____

Solve each equation for x.

1. $-8x^2 + 74x - 18 = 0$

2. $-15x^2 + 96x - 36 = 0$

3. $-10x^2 + 5x + 15 = 0$

4. $-16x^2 - 64x - 60 = 0$

5. $20x^2 + 60x - 135 = 0$

6. $-10x^2 - 65x - 75 = 0$

7. $16x^2 + 84x + 80 = 0$

8. $-16x^2 + 60x + 100 = 0$

9. $-9x^2 - 39x - 12 = 0$

10. $9x^2 - 33x + 24 = 0$

11. $10x^2 + 65x + 90 = 0$

12. $8x^2 + 60x + 100 = 0$

13. $-8x^2 + 4x + 60 = 0$

14. $4x^2 + 2x - 30 = 0$

15. $16x^2 + 44x + 28 = 0$

16. $-12x^2 - 45x + 75 = 0$

17. $-3x^2 + 45x - 168 = 0$

18. $-12x^2 + 3 = 0$

19. $9x^2 - 12x + 3 = 0$

20. $-20x^2 + 35x + 180 = 0$

Solving Quadratic Equations (A) Answers

Name: _____

Date: _____

Solve each equation for x.

1. $-8x^2 + 74x - 18 = 0$
   $-2(4x - 1)(x - 9) = 0$
   $x = \frac{1}{4}, 9$

2. $-15x^2 + 96x - 36 = 0$
   $-3(5x - 2)(x - 6) = 0$
   $x = \frac{2}{5}, 6$

3. $-10x^2 + 5x + 15 = 0$
   $-5(x + 1)(2x - 3) = 0$
   $x = -1, 1\frac{1}{2}$

4. $-16x^2 - 64x - 60 = 0$
   $-4(2x + 5)(2x + 3) = 0$
   $x = -2\frac{1}{2}, -1\frac{1}{2}$

5. $20x^2 + 60x - 135 = 0$
   $5(2x + 9)(2x - 3) = 0$
   $x = -4\frac{1}{2}, 1\frac{1}{2}$

6. $-10x^2 - 65x - 75 = 0$
   $-5(2x + 3)(x + 5) = 0$
   $x = -1\frac{1}{2}, -5$

7. $16x^2 + 84x + 80 = 0$
   $4(x + 4)(4x + 5) = 0$
   $x = -4, -1\frac{1}{4}$

8. $-16x^2 + 60x + 100 = 0$
   $-4(4x + 5)(x - 5) = 0$
   $x = -1\frac{1}{4}, 5$

9. $-9x^2 - 39x - 12 = 0$
   $-3(x + 4)(3x + 1) = 0$
   $x = -4, -\frac{1}{3}$

10. $9x^2 - 33x + 24 = 0$
    $3(3x - 8)(x - 1) = 0$
    $x = 2\frac{2}{3}, 1$

11. $10x^2 + 65x + 90 = 0$
    $5(x + 2)(2x + 9) = 0$
    $x = -2, -4\frac{1}{2}$

12. $8x^2 + 60x + 100 = 0$
    $4(x + 5)(2x + 5) = 0$
    $x = -5, -2\frac{1}{2}$

13. $-8x^2 + 4x + 60 = 0$
    $-4(x - 3)(2x + 5) = 0$
    $x = 3, -2\frac{1}{2}$

14. $4x^2 + 2x - 30 = 0$
    $2(2x - 5)(x + 3) = 0$
    $x = 2\frac{1}{2}, -3$

15. $16x^2 + 44x + 28 = 0$
    $4(x + 1)(4x + 7) = 0$
    $x = -1, -1\frac{3}{4}$

16. $-12x^2 - 45x + 75 = 0$
    $-3(4x - 5)(x + 5) = 0$
    $x = 1\frac{1}{4}, -5$

17. $-3x^2 + 45x - 168 = 0$
    $-3(x - 8)(x - 7) = 0$
    $x = 8, 7$

18. $-12x^2 + 3 = 0$
    $-3(2x + 1)(2x - 1) = 0$
    $x = -\frac{1}{2}, \frac{1}{2}$

19. $9x^2 - 12x + 3 = 0$
    $3(3x - 1)(x - 1) = 0$
    $x = \frac{1}{3}, 1$

20. $-20x^2 + 35x + 180 = 0$
    $-5(x - 4)(4x + 9) = 0$
    $x = 4, -2\frac{1}{4}$