Solving Quadratic Equations (E)

Name: _____ Date: _____

Solve each equation for x.

1. $5x^2 - 125 = 0$
2. $-4x^2 - 60x - 216 = 0$
3. $-2x^2 - 4x - 2 = 0$
4. $3x^2 - 39x + 120 = 0$
5. $4x^2 + 24x - 64 = 0$
6. $-4x^2 - 24x - 32 = 0$
7. $-5x^2 - 50x - 120 = 0$
8. $5x^2 + 20x - 160 = 0$
9. $5x^2 - 40x + 60 = 0$
10. $-4x^2 + 8x - 4 = 0$
11. $-5x^2 - 15x + 90 = 0$
12. $3x^2 - 3x - 126 = 0$
13. $4x^2 + 44x + 96 = 0$
14. $4x^2 - 8x - 60 = 0$
15. $-2x^2 + 32 = 0$
16. $-5x^2 - 45x - 40 = 0$
17. $-3x^2 + 36x - 105 = 0$
18. $3x^2 + 9x - 120 = 0$
19. $4x^2 + 4x - 48 = 0$
20. $2x^2 - 18x + 16 = 0$

Solving Quadratic Equations (E) Answers

Name: _____ Date: _____

Solve each equation for x.

1. $5x^2 - 125 = 0$
   $5(x-5)(x+5) = 0$
   $x = 5, -5$

2. $-4x^2 - 60x - 216 = 0$
   $-4(x+9)(x+6) = 0$
   $x = -9, -6$

3. $-2x^2 - 4x - 2 = 0$
   $-2(x+1)(x+1) = -2(x+1)^2 = 0$
   $x = -1$

4. $3x^2 - 39x + 120 = 0$
   $3(x-8)(x-5) = 0$
   $x = 8, 5$

5. $4x^2 + 24x - 64 = 0$
   $4(x-2)(x+8) = 0$
   $x = 2, -8$

6. $-4x^2 - 24x - 32 = 0$
   $-4(x+4)(x+2) = 0$
   $x = -4, -2$

7. $-5x^2 - 50x - 120 = 0$
   $-5(x+6)(x+4) = 0$
   $x = -6, -4$

8. $5x^2 + 20x - 160 = 0$
   $5(x+8)(x-4) = 0$
   $x = -8, 4$

9. $5x^2 - 40x + 60 = 0$
   $5(x-6)(x-2) = 0$
   $x = 6, 2$

10. $-4x^2 + 8x - 4 = 0$
    $-4(x-1)(x-1) = -4(x-1)^2 = 0$
    $x = 1$

11. $-5x^2 - 15x + 90 = 0$
    $-5(x+6)(x-3) = 0$
    $x = -6, 3$

12. $3x^2 - 3x - 126 = 0$
    $3(x-7)(x+6) = 0$
    $x = 7, -6$

13. $4x^2 + 44x + 96 = 0$
    $4(x+8)(x+3) = 0$
    $x = -8, -3$

14. $4x^2 - 8x - 60 = 0$
    $4(x+3)(x-5) = 0$
    $x = -3, 5$

15. $-2x^2 + 32 = 0$
    $-2(x-4)(x+4) = 0$
    $x = 4, -4$

16. $-5x^2 - 45x - 40 = 0$
    $-5(x+8)(x+1) = 0$
    $x = -8, -1$

17. $-3x^2 + 36x - 105 = 0$
    $-3(x-7)(x-5) = 0$
    $x = 7, 5$

18. $3x^2 + 9x - 120 = 0$
    $3(x+8)(x-5) = 0$
    $x = -8, 5$

19. $4x^2 + 4x - 48 = 0$
    $4(x-3)(x+4) = 0$
    $x = 3, -4$

20. $2x^2 - 18x + 16 = 0$
    $2(x-1)(x-8) = 0$
    $x = 1, 8$