Solving Quadratic Equations (I)

Name: _____ Date: _____

Solve each equation for x.

1. $9x^2 - 56x - 49 = 0$
2. $9x^2 - 62x - 7 = 0$
3. $6x^2 + 17x - 3 = 0$
4. $5x^2 + 27x - 18 = 0$
5. $x^2 - 5x + 6 = 0$
6. $4x^2 - 33x + 54 = 0$
7. $2x^2 + 21x + 54 = 0$
8. $3x^2 + 8x + 4 = 0$
9. $x^2 + x - 30 = 0$
10. $8x^2 - 17x + 9 = 0$
11. $2x^2 - x - 36 = 0$
12. $x^2 - 6x + 9 = 0$
13. $x^2 - 12x + 35 = 0$
14. $2x^2 - 19x + 9 = 0$
15. $4x^2 + 12x + 9 = 0$
16. $4x^2 + 5x - 6 = 0$
17. $8x^2 - 22x + 5 = 0$
18. $8x^2 + 63x - 81 = 0$
19. $3x^2 - 19x - 40 = 0$
20. $9x^2 + 58x + 24 = 0$

Solving Quadratic Equations (I) Answers

Name: _____ Date: _____

Solve each equation for x.

1. $9x^2 - 56x - 49 = 0$
   $(9x + 7)(x - 7) = 0$
   $x = -\frac{7}{9}, 7$

2. $9x^2 - 62x - 7 = 0$
   $(x - 7)(9x + 1) = 0$
   $x = 7, -\frac{1}{9}$

3. $6x^2 + 17x - 3 = 0$
   $(6x - 1)(x + 3) = 0$
   $x = \frac{1}{6}, -3$

4. $5x^2 + 27x - 18 = 0$
   $(x + 6)(5x - 3) = 0$
   $x = -6, \frac{3}{5}$

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

6. $4x^2 - 33x + 54 = 0$
   $(x - 6)(4x - 9) = 0$
   $x = 6, 2\frac{1}{4}$

7. $2x^2 + 21x + 54 = 0$
   $(x + 6)(2x + 9) = 0$
   $x = -6, -4\frac{1}{2}$

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

9. $x^2 + x - 30 = 0$
   $(x - 5)(x + 6) = 0$
   $x = 5, -6$

10. $8x^2 - 17x + 9 = 0$
    $(8x - 9)(x - 1) = 0$
    $x = 1\frac{1}{8}, 1$

11. $2x^2 - x - 36 = 0$
    $(x + 4)(2x - 9) = 0$
    $x = -4, 4\frac{1}{2}$

12. $x^2 - 6x + 9 = 0$
    $(x - 3)(x - 3) = (x - 3)^2 = 0$
    $x = 3$

13. $x^2 - 12x + 35 = 0$
    $(x - 5)(x - 7) = 0$
    $x = 5, 7$

14. $2x^2 - 19x + 9 = 0$
    $(2x - 1)(x - 9) = 0$
    $x = \frac{1}{2}, 9$

15. $4x^2 + 12x + 9 = 0$
    $(2x + 3)(2x + 3) = (2x + 3)^2 = 0$
    $x = -1\frac{1}{2}$

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

17. $8x^2 - 22x + 5 = 0$
    $(2x - 5)(4x - 1) = 0$
    $x = 2\frac{1}{2}, \frac{1}{4}$

18. $8x^2 + 63x - 81 = 0$
    $(8x - 9)(x + 9) = 0$
    $x = 1\frac{1}{8}, -9$

19. $3x^2 - 19x - 40 = 0$
    $(3x + 5)(x - 8) = 0$
    $x = -1\frac{2}{3}, 8$

20. $9x^2 + 58x + 24 = 0$
    $(9x + 4)(x + 6) = 0$
    $x = -\frac{4}{9}, -6$