Solving Quadratic Equations (H)

Name: _____ Date: _____

Solve each equation for x.

1. $-9x^2 - 45x - 56 = 0$
2. $x^2 + 7x + 6 = 0$
3. $9x^2 + 11x + 2 = 0$
4. $4x^2 - 20x + 9 = 0$
5. $5x^2 + 29x + 20 = 0$
6. $4x^2 + 27x - 81 = 0$
7. $-3x^2 - x + 24 = 0$
8. $-6x^2 + 17x - 10 = 0$
9. $6x^2 + 31x + 5 = 0$
10. $2x^2 - 7x - 4 = 0$
11. $3x^2 - 17x - 6 = 0$
12. $-6x^2 + 7x - 2 = 0$
13. $2x^2 + 5x - 63 = 0$
14. $2x^2 - 13x + 18 = 0$
15. $5x^2 + 13x + 6 = 0$
16. $4x^2 + 25x - 56 = 0$
17. $9x^2 + 25x - 6 = 0$
18. $-4x^2 + 13x + 12 = 0$
19. $8x^2 + 42x + 49 = 0$
20. $-8x^2 + 35x - 12 = 0$

Solving Quadratic Equations (H) Answers

Name: _____ Date: _____

Solve each equation for x.

1. $-9x^2 - 45x - 56 = 0$
   $-(3x + 8)(3x + 7) = 0$
   $x = -2\frac{2}{3}, -2\frac{1}{3}$

2. $x^2 + 7x + 6 = 0$
   $(x + 1)(x + 6) = 0$
   $x = -1, -6$

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

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

5. $5x^2 + 29x + 20 = 0$
   $(5x + 4)(x + 5) = 0$
   $x = -\frac{4}{5}, -5$

6. $4x^2 + 27x - 81 = 0$
   $(4x - 9)(x + 9) = 0$
   $x = 2\frac{1}{4}, -9$

7. $-3x^2 - x + 24 = 0$
   $-(x + 3)(3x - 8) = 0$
   $x = -3, 2\frac{2}{3}$

8. $-6x^2 + 17x - 10 = 0$
   $-(6x - 5)(x - 2) = 0$
   $x = \frac{5}{6}, 2$

9. $6x^2 + 31x + 5 = 0$
   $(6x + 1)(x + 5) = 0$
   $x = -\frac{1}{6}, -5$

10. $2x^2 - 7x - 4 = 0$
    $(x - 4)(2x + 1) = 0$
    $x = 4, -\frac{1}{2}$

11. $3x^2 - 17x - 6 = 0$
    $(x - 6)(3x + 1) = 0$
    $x = 6, -\frac{1}{3}$

12. $-6x^2 + 7x - 2 = 0$
    $-(2x - 1)(3x - 2) = 0$
    $x = \frac{1}{2}, \frac{2}{3}$

13. $2x^2 + 5x - 63 = 0$
    $(2x - 9)(x + 7) = 0$
    $x = 4\frac{1}{2}, -7$

14. $2x^2 - 13x + 18 = 0$
    $(2x - 9)(x - 2) = 0$
    $x = 4\frac{1}{2}, 2$

15. $5x^2 + 13x + 6 = 0$
    $(x + 2)(5x + 3) = 0$
    $x = -2, -\frac{3}{5}$

16. $4x^2 + 25x - 56 = 0$
    $(x + 8)(4x - 7) = 0$
    $x = -8, 1\frac{3}{4}$

17. $9x^2 + 25x - 6 = 0$
    $(9x - 2)(x + 3) = 0$
    $x = \frac{2}{9}, -3$

18. $-4x^2 + 13x + 12 = 0$
    $-(4x + 3)(x - 4) = 0$
    $x = -\frac{3}{4}, 4$

19. $8x^2 + 42x + 49 = 0$
    $(2x + 7)(4x + 7) = 0$
    $x = -3\frac{1}{2}, -1\frac{3}{4}$

20. $-8x^2 + 35x - 12 = 0$
    $-(8x - 3)(x - 4) = 0$
    $x = \frac{3}{8}, 4$