

Solving Quadratic Equations (A)

Name: _____

Date: _____

Solve each equation for x.

$$1. \ 9x^2 + 88x + 63 = 0$$

$$11. \ 7x^2 + 10x - 8 = 0$$

$$2. \ 81x^2 + 117x + 40 = 0$$

$$12. \ 9x^2 - 18x + 5 = 0$$

$$3. \ 10x^2 - 37x + 30 = 0$$

$$13. \ 9x^2 + 23x - 12 = 0$$

$$4. \ 12x^2 - 28x - 49 = 0$$

$$14. \ 5x^2 - 7x + 2 = 0$$

$$5. \ 27x^2 + 48x + 5 = 0$$

$$15. \ 48x^2 - 82x + 35 = 0$$

$$6. \ 4x^2 - 81 = 0$$

$$16. \ 54x^2 - 21x - 20 = 0$$

$$7. \ 24x^2 + 50x - 9 = 0$$

$$17. \ 24x^2 + 49x + 15 = 0$$

$$8. \ 8x^2 - 53x + 30 = 0$$

$$18. \ 36x^2 - 91x + 49 = 0$$

$$9. \ 5x^2 + 12x + 7 = 0$$

$$19. \ 54x^2 + 57x - 7 = 0$$

$$10. \ 5x^2 - 9x + 4 = 0$$

$$20. \ 40x^2 - 77x + 9 = 0$$

Solving Quadratic Equations (A) Answers

Name: _____

Date: _____

Solve each equation for x.

$$1. \quad 9x^2 + 88x + 63 = 0$$

$$(x + 9)(9x + 7) = 0$$

$$x = -9, -\frac{7}{9}$$

$$2. \quad 81x^2 + 117x + 40 = 0$$

$$(9x + 8)(9x + 5) = 0$$

$$x = -\frac{8}{9}, -\frac{5}{9}$$

$$3. \quad 10x^2 - 37x + 30 = 0$$

$$(5x - 6)(2x - 5) = 0$$

$$x = 1\frac{1}{5}, 2\frac{1}{2}$$

$$4. \quad 12x^2 - 28x - 49 = 0$$

$$(2x - 7)(6x + 7) = 0$$

$$x = 3\frac{1}{2}, -1\frac{1}{6}$$

$$5. \quad 27x^2 + 48x + 5 = 0$$

$$(3x + 5)(9x + 1) = 0$$

$$x = -1\frac{2}{3}, -\frac{1}{9}$$

$$6. \quad 4x^2 - 81 = 0$$

$$(2x - 9)(2x + 9) = 0$$

$$x = 4\frac{1}{2}, -4\frac{1}{2}$$

$$7. \quad 24x^2 + 50x - 9 = 0$$

$$(4x + 9)(6x - 1) = 0$$

$$x = -2\frac{1}{4}, \frac{1}{6}$$

$$8. \quad 8x^2 - 53x + 30 = 0$$

$$(x - 6)(8x - 5) = 0$$

$$x = 6, \frac{5}{8}$$

$$9. \quad 5x^2 + 12x + 7 = 0$$

$$(x + 1)(5x + 7) = 0$$

$$x = -1, -1\frac{2}{5}$$

$$10. \quad 5x^2 - 9x + 4 = 0$$

$$(x - 1)(5x - 4) = 0$$

$$x = 1, \frac{4}{5}$$

$$11. \quad 7x^2 + 10x - 8 = 0$$

$$(x + 2)(7x - 4) = 0$$

$$x = -2, \frac{4}{7}$$

$$12. \quad 9x^2 - 18x + 5 = 0$$

$$(3x - 5)(3x - 1) = 0$$

$$x = 1\frac{2}{3}, \frac{1}{3}$$

$$13. \quad 9x^2 + 23x - 12 = 0$$

$$(9x - 4)(x + 3) = 0$$

$$x = \frac{4}{9}, -3$$

$$14. \quad 5x^2 - 7x + 2 = 0$$

$$(x - 1)(5x - 2) = 0$$

$$x = 1, \frac{2}{5}$$

$$15. \quad 48x^2 - 82x + 35 = 0$$

$$(8x - 7)(6x - 5) = 0$$

$$x = \frac{7}{8}, \frac{5}{6}$$

$$16. \quad 54x^2 - 21x - 20 = 0$$

$$(6x - 5)(9x + 4) = 0$$

$$x = \frac{5}{6}, -\frac{4}{9}$$

$$17. \quad 24x^2 + 49x + 15 = 0$$

$$(3x + 5)(8x + 3) = 0$$

$$x = -1\frac{2}{3}, -\frac{3}{8}$$

$$18. \quad 36x^2 - 91x + 49 = 0$$

$$(9x - 7)(4x - 7) = 0$$

$$x = \frac{7}{9}, 1\frac{3}{4}$$

$$19. \quad 54x^2 + 57x - 7 = 0$$

$$(9x - 1)(6x + 7) = 0$$

$$x = \frac{1}{9}, -1\frac{1}{6}$$

$$20. \quad 40x^2 - 77x + 9 = 0$$

$$(5x - 9)(8x - 1) = 0$$

$$x = 1\frac{4}{5}, \frac{1}{8}$$