

Solving Quadratic Equations (E)

Name: _____

Date: _____

Solve each equation for x.

$$1. \ -6x^2 - 59x - 45 = 0$$

$$11. \ -6x^2 - 7x + 24 = 0$$

$$2. \ -x^2 - 3x - 2 = 0$$

$$12. \ 8x^2 + 18x + 7 = 0$$

$$3. \ 6x^2 - 55x + 56 = 0$$

$$13. \ 2x^2 - 13x + 6 = 0$$

$$4. \ 4x^2 + 28x + 45 = 0$$

$$14. \ -9x^2 - 32x + 16 = 0$$

$$5. \ 6x^2 + 7x + 2 = 0$$

$$15. \ -8x^2 + 18x - 7 = 0$$

$$6. \ 7x^2 + 40x + 25 = 0$$

$$16. \ -7x^2 - 32x + 15 = 0$$

$$7. \ 6x^2 + 59x + 45 = 0$$

$$17. \ 8x^2 + 45x - 18 = 0$$

$$8. \ 7x^2 + 18x - 9 = 0$$

$$18. \ 4x^2 + 16x + 7 = 0$$

$$9. \ 2x^2 + 3x - 27 = 0$$

$$19. \ -2x^2 + 21x - 49 = 0$$

$$10. \ 9x^2 - 14x - 8 = 0$$

$$20. \ 7x^2 + 10x - 8 = 0$$

Solving Quadratic Equations (E) Answers

Name: _____

Date: _____

Solve each equation for x.

$$1. \quad -6x^2 - 59x - 45 = 0$$
$$-(x + 9)(6x + 5) = 0$$
$$x = -9, -\frac{5}{6}$$

$$2. \quad -x^2 - 3x - 2 = 0$$
$$-(x + 1)(x + 2) = 0$$
$$x = -1, -2$$

$$3. \quad 6x^2 - 55x + 56 = 0$$
$$(6x - 7)(x - 8) = 0$$
$$x = 1\frac{1}{6}, 8$$

$$4. \quad 4x^2 + 28x + 45 = 0$$
$$(2x + 9)(2x + 5) = 0$$
$$x = -4\frac{1}{2}, -2\frac{1}{2}$$

$$5. \quad 6x^2 + 7x + 2 = 0$$
$$(2x + 1)(3x + 2) = 0$$
$$x = -\frac{1}{2}, -\frac{2}{3}$$

$$6. \quad 7x^2 + 40x + 25 = 0$$
$$(x + 5)(7x + 5) = 0$$
$$x = -5, -\frac{5}{7}$$

$$7. \quad 6x^2 + 59x + 45 = 0$$
$$(x + 9)(6x + 5) = 0$$
$$x = -9, -\frac{5}{6}$$

$$8. \quad 7x^2 + 18x - 9 = 0$$
$$(x + 3)(7x - 3) = 0$$
$$x = -3, \frac{3}{7}$$

$$9. \quad 2x^2 + 3x - 27 = 0$$
$$(2x + 9)(x - 3) = 0$$
$$x = -4\frac{1}{2}, 3$$

$$10. \quad 9x^2 - 14x - 8 = 0$$
$$(x - 2)(9x + 4) = 0$$
$$x = 2, -\frac{4}{9}$$

$$11. \quad -6x^2 - 7x + 24 = 0$$
$$-(3x + 8)(2x - 3) = 0$$
$$x = -2\frac{2}{3}, 1\frac{1}{2}$$

$$12. \quad 8x^2 + 18x + 7 = 0$$
$$(2x + 1)(4x + 7) = 0$$
$$x = -\frac{1}{2}, -1\frac{3}{4}$$

$$13. \quad 2x^2 - 13x + 6 = 0$$
$$(2x - 1)(x - 6) = 0$$
$$x = \frac{1}{2}, 6$$

$$14. \quad -9x^2 - 32x + 16 = 0$$
$$-(x + 4)(9x - 4) = 0$$
$$x = -4, \frac{4}{9}$$

$$15. \quad -8x^2 + 18x - 7 = 0$$
$$-(2x - 1)(4x - 7) = 0$$
$$x = \frac{1}{2}, 1\frac{3}{4}$$

$$16. \quad -7x^2 - 32x + 15 = 0$$
$$-(x + 5)(7x - 3) = 0$$
$$x = -5, \frac{3}{7}$$

$$17. \quad 8x^2 + 45x - 18 = 0$$
$$(x + 6)(8x - 3) = 0$$
$$x = -6, \frac{3}{8}$$

$$18. \quad 4x^2 + 16x + 7 = 0$$
$$(2x + 7)(2x + 1) = 0$$
$$x = -3\frac{1}{2}, -\frac{1}{2}$$

$$19. \quad -2x^2 + 21x - 49 = 0$$
$$-(2x - 7)(x - 7) = 0$$
$$x = 3\frac{1}{2}, 7$$

$$20. \quad 7x^2 + 10x - 8 = 0$$
$$(7x - 4)(x + 2) = 0$$
$$x = \frac{4}{7}, -2$$