

Solving Quadratic Equations (A)

Name: _____

Date: _____

Solve each equation for x.

1. $3x^2 + 13x + 12 = 0$

11. $9x^2 - 21x + 10 = 0$

2. $8x^2 - 2x - 45 = 0$

12. $6x^2 + 31x - 30 = 0$

3. $2x^2 + 3x + 1 = 0$

13. $3x^2 - 26x + 16 = 0$

4. $5x^2 - 33x + 18 = 0$

14. $8x^2 - 47x - 6 = 0$

5. $8x^2 - 18x + 9 = 0$

15. $6x^2 + 53x - 9 = 0$

6. $5x^2 + 42x + 16 = 0$

16. $8x^2 + 14x - 9 = 0$

7. $2x^2 - 17x + 30 = 0$

17. $4x^2 + 4x - 3 = 0$

8. $7x^2 + 50x + 7 = 0$

18. $8x^2 - 30x + 25 = 0$

9. $2x^2 - x - 1 = 0$

19. $9x^2 - 23x - 12 = 0$

10. $4x^2 - 27x - 40 = 0$

20. $6x^2 - 49x - 45 = 0$

Solving Quadratic Equations (A) Answers

Name: _____

Date: _____

Solve each equation for x.

1. $3x^2 + 13x + 12 = 0$
 $(x + 3)(3x + 4) = 0$
 $x = -3, -1\frac{1}{3}$

2. $8x^2 - 2x - 45 = 0$
 $(4x + 9)(2x - 5) = 0$
 $x = -2\frac{1}{4}, 2\frac{1}{2}$

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

4. $5x^2 - 33x + 18 = 0$
 $(5x - 3)(x - 6) = 0$
 $x = \frac{3}{5}, 6$

5. $8x^2 - 18x + 9 = 0$
 $(4x - 3)(2x - 3) = 0$
 $x = \frac{3}{4}, 1\frac{1}{2}$

6. $5x^2 + 42x + 16 = 0$
 $(5x + 2)(x + 8) = 0$
 $x = -\frac{2}{5}, -8$

7. $2x^2 - 17x + 30 = 0$
 $(x - 6)(2x - 5) = 0$
 $x = 6, 2\frac{1}{2}$

8. $7x^2 + 50x + 7 = 0$
 $(7x + 1)(x + 7) = 0$
 $x = -\frac{1}{7}, -7$

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

10. $4x^2 - 27x - 40 = 0$
 $(4x + 5)(x - 8) = 0$
 $x = -1\frac{1}{4}, 8$

11. $9x^2 - 21x + 10 = 0$
 $(3x - 5)(3x - 2) = 0$
 $x = 1\frac{2}{3}, \frac{2}{3}$

12. $6x^2 + 31x - 30 = 0$
 $(x + 6)(6x - 5) = 0$
 $x = -6, \frac{5}{6}$

13. $3x^2 - 26x + 16 = 0$
 $(x - 8)(3x - 2) = 0$
 $x = 8, \frac{2}{3}$

14. $8x^2 - 47x - 6 = 0$
 $(x - 6)(8x + 1) = 0$
 $x = 6, -\frac{1}{8}$

15. $6x^2 + 53x - 9 = 0$
 $(x + 9)(6x - 1) = 0$
 $x = -9, \frac{1}{6}$

16. $8x^2 + 14x - 9 = 0$
 $(4x + 9)(2x - 1) = 0$
 $x = -2\frac{1}{4}, \frac{1}{2}$

17. $4x^2 + 4x - 3 = 0$
 $(2x + 3)(2x - 1) = 0$
 $x = -1\frac{1}{2}, \frac{1}{2}$

18. $8x^2 - 30x + 25 = 0$
 $(2x - 5)(4x - 5) = 0$
 $x = 2\frac{1}{2}, 1\frac{1}{4}$

19. $9x^2 - 23x - 12 = 0$
 $(x - 3)(9x + 4) = 0$
 $x = 3, -\frac{4}{9}$

20. $6x^2 - 49x - 45 = 0$
 $(6x + 5)(x - 9) = 0$
 $x = -\frac{5}{6}, 9$