

Solving Quadratic Equations (E)

Name: _____

Date: _____

Solve each equation for x.

1. $8x^2 - 20x - 12 = 0$

11. $-16x^2 - 96x - 108 = 0$

2. $-8x^2 - 32x - 30 = 0$

12. $8x^2 - 28x + 24 = 0$

3. $-5x^2 - 50x - 125 = 0$

13. $-6x^2 - 75x - 189 = 0$

4. $-10x^2 + 5x + 105 = 0$

14. $-9x^2 + 15x + 84 = 0$

5. $6x^2 - 9x - 60 = 0$

15. $12x^2 + 27x + 15 = 0$

6. $-12x^2 + 12x + 189 = 0$

16. $16x^2 + 32x - 180 = 0$

7. $-12x^2 - 84x - 135 = 0$

17. $-16x^2 + 44x - 24 = 0$

8. $-20x^2 + 80x + 45 = 0$

18. $-6x^2 - 33x + 120 = 0$

9. $-4x^2 - 18x + 112 = 0$

19. $12x^2 - 63x + 60 = 0$

10. $-8x^2 - 68x - 120 = 0$

20. $12x^2 - 4x - 56 = 0$

Solving Quadratic Equations (E) Answers

Name: _____

Date: _____

Solve each equation for x.

- $8x^2 - 20x - 12 = 0$
 $4(x - 3)(2x + 1) = 0$
 $x = 3, -\frac{1}{2}$
- $-8x^2 - 32x - 30 = 0$
 $-2(2x + 5)(2x + 3) = 0$
 $x = -2\frac{1}{2}, -1\frac{1}{2}$
- $-5x^2 - 50x - 125 = 0$
 $-5(x + 5)(x + 5) = -5(x + 5)^2 = 0$
 $x = -5$
- $-10x^2 + 5x + 105 = 0$
 $-5(2x - 7)(x + 3) = 0$
 $x = 3\frac{1}{2}, -3$
- $6x^2 - 9x - 60 = 0$
 $3(2x + 5)(x - 4) = 0$
 $x = -2\frac{1}{2}, 4$
- $-12x^2 + 12x + 189 = 0$
 $-3(2x - 9)(2x + 7) = 0$
 $x = 4\frac{1}{2}, -3\frac{1}{2}$
- $-12x^2 - 84x - 135 = 0$
 $-3(2x + 5)(2x + 9) = 0$
 $x = -2\frac{1}{2}, -4\frac{1}{2}$
- $-20x^2 + 80x + 45 = 0$
 $-5(2x - 9)(2x + 1) = 0$
 $x = 4\frac{1}{2}, -\frac{1}{2}$
- $-4x^2 - 18x + 112 = 0$
 $-2(x + 8)(2x - 7) = 0$
 $x = -8, 3\frac{1}{2}$
- $-8x^2 - 68x - 120 = 0$
 $-4(2x + 5)(x + 6) = 0$
 $x = -2\frac{1}{2}, -6$
- $-16x^2 - 96x - 108 = 0$
 $-4(2x + 9)(2x + 3) = 0$
 $x = -4\frac{1}{2}, -1\frac{1}{2}$
- $8x^2 - 28x + 24 = 0$
 $4(2x - 3)(x - 2) = 0$
 $x = 1\frac{1}{2}, 2$
- $-6x^2 - 75x - 189 = 0$
 $-3(x + 9)(2x + 7) = 0$
 $x = -9, -3\frac{1}{2}$
- $-9x^2 + 15x + 84 = 0$
 $-3(x - 4)(3x + 7) = 0$
 $x = 4, -2\frac{1}{3}$
- $12x^2 + 27x + 15 = 0$
 $3(x + 1)(4x + 5) = 0$
 $x = -1, -1\frac{1}{4}$
- $16x^2 + 32x - 180 = 0$
 $4(2x - 5)(2x + 9) = 0$
 $x = 2\frac{1}{2}, -4\frac{1}{2}$
- $-16x^2 + 44x - 24 = 0$
 $-4(x - 2)(4x - 3) = 0$
 $x = 2, \frac{3}{4}$
- $-6x^2 - 33x + 120 = 0$
 $-3(x + 8)(2x - 5) = 0$
 $x = -8, 2\frac{1}{2}$
- $12x^2 - 63x + 60 = 0$
 $3(4x - 5)(x - 4) = 0$
 $x = 1\frac{1}{4}, 4$
- $12x^2 - 4x - 56 = 0$
 $4(x + 2)(3x - 7) = 0$
 $x = -2, 2\frac{1}{3}$