

Name: _____

Secondary Math 1

KEY

Unit 1.3 Solving Equations Variable on both Sides

Solve each equation.

1. $5x + 2 = 3x - 6$

$x = -4$

2. $7x - 5x + 15 = x + 8$

$x = -7$

3. $2x + 4 - x = 4x - 5$

$x = 3$

4. $-4x + 5x - 8 + 4 = 6x - 4$

$x = 0$

5. $2(3 - 2x) = x - 4$

$x = 2$

6. $-6x + 2x - 11 = -2(2x - 3) + 4$

no solution

7. $2(x + 3) = -4(x + 1)$

$x = -\frac{5}{3}$

8. $4(2x + 7) = 2x + 25 + 3(2x + 1)$

all real solutions

9. $-[6x - (4x + 8)] = 9 + (6x + 3)$

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

10. $-3x + 6 - 5(x - 1) = -5x - 5(2x - 4) + 5$

$x = 2$

$$11. 7[2 - (3 + 4x)] - 2x = -9 + 2(1 - 15x)$$

all real solutions

$$12. 2[-(x - 1) + 4] = 5 + [-(6x - 7) + 9x]$$

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

$$13. \frac{2x-3}{7} + \frac{3}{7} = -\frac{x}{3}$$

$$x = 0$$

$$14. \frac{2x+5}{5} = \frac{3x+1}{2} + \frac{-x+7}{2}$$

$$x = -5$$

$$15. 0.02(50) + 0.08x = 0.04(50 + x)$$

$$x = 25$$

$$16. 0.20(14,000) + 0.14x = 0.18(14,000 + x)$$

$$x = 7,000$$

$$17. 0.006(x + 2) = 0.007x + 0.009$$

$$x = 3$$

$$18. 0.08x + 0.12(260 - x) = 0.48x$$

$$x = 60$$