

Name \_\_\_\_\_

**SOLVING EQUATIONS—VARIABLES ON BOTH SIDES #2**

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**Directions:** Solve for  $x$  in each equation below. Use inverse operations to get the variable all by itself on one side of the equation, and then get the integers (numbers) alone on the other side of the equation.

Examples:  $5x - 21 = 2x - 6$  (add 21 to both sides)       $5x - 12 = 2x - 9$  (add 12 to both sides)  
 $5x = 2x + 15$  (subtract  $2x$  from both sides)       $5x = 2x + 3$  (subtract  $2x$  from both sides)  
 $3x = 15$  (divide both sides by 3)       $3x = 3$  (divide both sides by 3)  
 **$x = 5$**        **$x = 1$**

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1)  $3x - 61 = 2x - 50$

2)  $6x - 64 = 2x - 44$

3)  $8x - 90 = 2x - 36$

4)  $4x - 18 = x - 3$

**$x =$  \_\_\_\_\_**

**$x =$  \_\_\_\_\_**

**$x =$  \_\_\_\_\_**

**$x =$  \_\_\_\_\_**

5)  $3x - 71 = 2x - 50$

6)  $6x - 68 = 2x - 44$

7)  $8x - 72 = 2x - 36$

8)  $4x - 21 = x - 18$

**$x =$  \_\_\_\_\_**

**$x =$  \_\_\_\_\_**

**$x =$  \_\_\_\_\_**

**$x =$  \_\_\_\_\_**

9)  $4x - 82 = 2x - 50$

10)  $5x - 68 = 2x - 44$

11)  $8x - 88 = 2x - 34$

12)  $4x - 50 = 2x - 8$

**$x =$  \_\_\_\_\_**

**$x =$  \_\_\_\_\_**

**$x =$  \_\_\_\_\_**

**$x =$  \_\_\_\_\_**