## **Solving Multi-Step Equations**

**Directions:** Solve each equation.

1. 
$$3x - 8 = 22$$

9. 
$$4(x + 3) = 2(x - 5)$$

2. 
$$4x - 5 = 31$$

10. 
$$3x - 7 = 4x + 3$$

3. 
$$5x - 3 = 4x + 10$$

11. 
$$2(2x-3) = 3(x+1)$$

4. 
$$3(2x-4)+5=17$$

12. 
$$5(2x + 4) - 3(3x - 2) = 17$$

5. 
$$2(x + 3) = 16$$

13. 
$$2x + 3 = x - 5$$

6. 
$$2(3x + 2) - 7 = 15$$

14. 
$$3(4x-1) = 5 + 2(2x + 3)$$

7. 
$$2x + 5 = 3x - 10$$

15. 
$$4x - 5 = 7x - 12$$

8. 
$$3(2x-1)+4=14$$

16. 
$$2(x-3) = 3(2x-1)$$

## **ANSWER KEY**

1. 
$$3x - 8 = 22$$
  
 $x = 10$ 

9. 
$$4(x + 3) = 2(x - 5)$$
  
 $x = -11$ 

2. 
$$4x - 5 = 31$$
  
 $x = 9$ 

10. 
$$3x - 7 = 4x + 3$$
  
 $x = -10$ 

3. 
$$5x - 3 = 4x + 10$$
  
 $x = 13$ 

11. 
$$2(2x-3) = 3(x+1)$$
  
 $x = 9$ 

4. 
$$3(2x-4) + 5 = 17$$
  
 $x = 4$ 

12. 
$$5(2x + 4) - 3(3x - 2) = 17$$
  
 $x = -9$ 

5. 
$$2(x + 3) = 16$$
  
 $x = 5$ 

13. 
$$2x + 3 = x - 5$$
  
 $x = -8$ 

6. 
$$2(3x + 2) - 7 = 15$$
  
 $x = 3$ 

14. 
$$3(4x-1) = 5 + 2(2x + 3)$$
  
 $x = 7/4$ 

7. 
$$2x + 5 = 3x - 10$$
  
 $x = 15$ 

15. 
$$4x - 5 = 7x - 12$$
  
 $x = 7/3$ 

8. 
$$3(2x-1)+4=14$$
  
 $x=13/6$ 

16. 
$$2(x-3) = 3(2x-1)$$
  
 $x = -3/4$