



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Algebra 1 – Unit 2 – What Are Solutions? (Challenge)

1. How many solutions:  $3x + 10 = 3x + 14$ ? (0, 1, or infinite)

2. How many solutions does  $7x + 12 = 7x + 12$  have? (0, 1, or infinite)

3. If  $4x + 14 = 4x + k$  has no solution, k could be: \_\_\_\_\_

8. How many solutions does  $2x + 12 = 2x + 1$  have? (0, 1, or infinite)

4. How many solutions does  $4x + 3 = 4x + 3$  have? (0, 1, or infinite)

5. If  $3x + 14 = 3x + k$  has no solution, k could be: \_\_\_\_\_

10. How many solutions:  $6x + 7 = 4x + 20$ ? (0, 1, or infinite)



# Algebra 1 – Unit 2 – What Are Solutions? (Challenge) – Answer Key

1. text{How many solutions: }  $3x + 10 = 3x + 14$  text{ }  $7x + 12 = 7x + 1$   
 $x = 0$   $x = 0$

2. text{How many solutions does }  $7x + 12 = 7x + 12$  text{ }  $7x + 12 = 7x + 12$   
 $x = 999$   $x = 0$

3. text{If }  $4x + 14 = 4x + k$  text{ has no solution, k could be:}  
 $x = 24$
8. text{How many solutions does }  $2x + 12 = 2x + 1$   
 $x = 999$

4. text{How many solutions does }  $4x + 3 = 4x + 3$  text{ }  $4x + 3 = 4x + 3$   
 $x = 999$   $x = 999$

5. text{If }  $3x + 14 = 3x + k$  text{ has no solution, k could be:}  
 $x = 20$
10. text{How many solutions: }  $6x + 7 = 4x + 20$  text{ }  
 $x = 1$