



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

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

Fresh  
Math

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

1. text{How many solutions: }  $3x + 10 = 3x + 6$ ? text{ (0, 1, many, infinite)}  $7x + 12 = 7x + 1$
2. text{How many solutions does }  $7x + 12 = 7x + 12$ ? text{ (0, 1, many, infinite)}
3. text{If }  $4x + 14 = 4x + k$  text{ has no solution, k could be:}
4. text{How many solutions does }  $4x + 3 = 4x$ ? text{ (0, 1, many, infinite)}
5. text{If }  $3x + 14 = 3x + k$  text{ has no solution, k could be:}
6. text{How many solutions does }  $2x + 12 = 2x + 1$ ? text{ (0, 1, many, infinite)}
7. text{How many solutions does }  $2x + 12 = 2x + 12$ ? text{ (0, 1, many, infinite)}
8. text{How many solutions does }  $2x + 12 = 2x + 1$ ? text{ (0, 1, many, infinite)}
9. text{How many solutions does }  $6x + 7 = 4x + 20$ ? text{ (0, 1, many, infinite)}



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

1. text{How many solutions: }  $3x + 10 = 3x + 64$  (No, 1 many solutions since 10 ≠ 64) }  $7x + 12 = 7x + 1$   
 $x = 0$   $x = 0$

2. text{How many solutions does }  $7x + 12 = 7x + 12$  (No, 0 many solutions since 12 = 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 }  $4x + 3 = 4x$  (No, 0 many solutions since 3 ≠ 0) }  $299 + 10 \text{ in 2nd}$   
 $x = 999$   $x = 999$

5. text{If }  $3x + 14 = 3x + k$  text{ has no solution, k could be:}  
 $x = 20$

10. text{How many solutions: }  $6x + 7 = 4x + 20$ ? (1, 1 many solutions since 7 ≠ 20)  
 $x = 1$