

Name \_\_\_\_\_

Date \_\_\_\_\_

## Solving Equations and Inequalities - Guided Lesson Explanation

### Explanation#1

$48 < y$  this is a sign of less than which means 48 is less than  $y$ . Put values of  $y$  in to find the answer.

We are looking for a number larger than 48. Lets input all the numbers:

Replace  $y = 71$  in  $48 < y$

$$48 < 71$$

**48 is less than 71, so it proves equation. So it is correct.**

Replace  $y = 12$  in  $48 < y$

$$48 < 12$$

48 is not less than 12. So it is not correct.

Replace  $y = 48$  in  $48 < y$

$$48 < 48$$

48 is equal to 48, so it does not prove the equation right.

Replace  $y = 37$  in  $48 < y$

$$48 < 37$$

48 is greater than 37. It also does not prove the equation, so it is not a solution.

### Explanation#2

a) Replace  $t$  with the number 4 in the inequality.

$$t < 3$$

$$4 < 3$$

It is false that  $4 < 3$ . 4 is not less than 3. So,  $t = 4$  is not a solution



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### Explanation#3

b)  $x \geq 14$  shows that  $x$  is greater than or equal to 14. The number we are looking for should be greater or equal to 14.

To find the answer, replace  $x$  with the options given:

Put the value  $x = 3$  in  $x \geq 14$

$$x = 3$$
$$3 \geq 14$$

3 is not greater or equal to 14. So,  $x = 3$  is not solution.

Replace  $x = 6$  in  $x \geq 14$

$$x = 6$$
$$6 \geq 14$$

6 is not greater or equal to 14. So,  $x = 6$  is not solution.

Replace  $x = 0$  in  $x \geq 14$

$$x = 0$$
$$0 \geq 14$$

0 is not greater or equal to 14. So,  $x = 0$  is not solution.

Replace  $x = 16$  in  $x \geq 14$

$$x = 16$$
$$16 \geq 14$$

**16 is greater than 14. So,  $x = 16$  is right solution.**

