

**Number properties: Exploring zero.**

Name:

Here are some true things I know about zero:

When we use **letters** in a maths equation, they represent (or stand for) numbers. Here is why they are useful:

I can use what I know about *zero* and about variables (letters) to solve equations like this:

$14 + \square = 14$	$\square - 25 = 0$	$\square = 54 + 47 - 54$
$a - 0 = \square$	$37 = \square - 0$	$\square + y - x = y$
$24 + 18 - \square = 24$	$a + b - \square = a$	$0 + 97 = \square$
$a = \square + a$	$17 + \square - 40 - 5 = 17$	$101 = 101 + \square - 0$

This is what I know so far about number properties.

I'll draw and show on a number line what I know about  
 $a - a = 0$  (additive inverse)  
 $a + 0 = a$  (additive identity).

The multiplicative identity,  $a \times 1 = a$ , looks like this with counters.

Here's why: