

Why is it when you multiply two negative numbers you get a positive number? Good question!

### The First Answer

Some people think of a negative as meaning “not”. So if I say, “I am not going to the store,” that is sort of the negative version of “I am going to the store.”

So what do two “nots” mean? Consider this sentence: “You may tell me NOT to go to the store, but I’m NOT going to do what you say!” By negating your negation, I am insisting that I will go to the store.

Two “nots” cancel each other out, just like two negatives.

### The Second Answer

Let’s use negatives with money. A green chip is worth \$5. A red chip means that I owe you \$5. So if you lose \$5, you can represent that by giving up a green chip or by picking up a red chip. So a green chip is +\$5 and a red chip is -\$5.

If you gain three green chips, what happens? 3 times \$5 equals a \$15 gain.

If you gain three red chips, what happens? 3 times -\$5 equals a \$15 loss.

What if you lose three green chips? You just lost \$15. -3 times \$5 equals a \$15 loss.

What if you lose three red chips? You just gained \$15. -3 times -\$5 equals a \$15 gain.

### The Third Answer

How about proving it with a pattern?

$3 \bullet 5$	<b>+15</b>
$2 \bullet 5$	<b>+10</b>
$1 \bullet 5$	<b>+5</b>
$0 \bullet 5$	<b>0</b>
$-1 \bullet 5$	<b>-5</b>
$-2 \bullet 5$	<b>-10</b>

So....

$3 \bullet -5$	<b>-15</b>
$2 \bullet -5$	<b>-10</b>
$1 \bullet -5$	<b>-5</b>
$0 \bullet -5$	<b>0</b>
$-1 \bullet -5$	<b>+5</b>
$-2 \bullet -5$	<b>+10</b>