Lessons in Natural Numbers

Vocabulary

Symbols – Drawings used to symbolize mathematical operations and numbers
To count – The process of finding the total number of a group of numbers

4 + 7 = Addition
10 – 7 = Subtraction
4 x 10 or 4 · 10 = Multiplication
12 ÷ 3 or 12/3 = Division

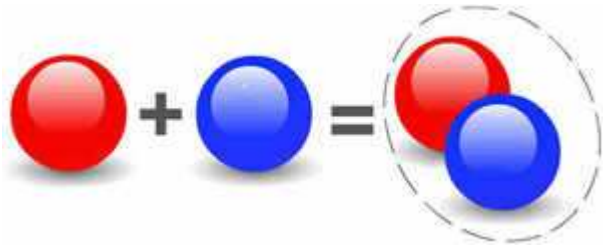
Natural numbers enable us to count. 1 2 3 4 5 6 7 8 9 0. These are the numbers we use today but earlier societies used different symbols. Systems that use symbols for counting are called **Numeration Systems.**

Egyptians used these symbols

One Ten One Hundred One Thousand

This type of Numeration System is an **addition system** because in order to write a number you have to add one to the other. | ∩ = 11

Here is a simple example of addition:



1 ball is **added** to 1 ball to make 2 balls.
One **plus** one equals two.

The Roman numeral System

I	V	X	L	C	D	M
One	Five	Ten	Fifty	One Hundred	Five Hundred	One Thousand

This system is also an **addition system** because you have to add numbers to reach the desired quantity. VII = 7 Do you understand?

However, to write 4 and 9, 14 and 19, 40 and 90 etc.the system is **positional**. In this case you have to subtract to achieve the desired value. The amount on the left subtracts from the greater amount on the Right. To do this the numbers have to be in **positions.** You subtract one from five and you get four. If the smaller number is on the left, it is **subtracted** from the greater number but if the smaller number is on the right it is added.

IV = 4 How?	V	-	I	=	IV
	Five	minus	One	Equals	Four

Look…	V	+	I	+	I	=	VII
	Five (5)	Plus	One(1)	Plus	One(1)	Equals	Seven(7)

The **Decimal Numeration System**

Today we use the decimal numeration system which was born in India en the 7th century and arrived to Europe with the Arabs. As you know, there are only ten symbols.

1	2	3	4	5	6	7	8	9	0
One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Zero

Each number can take different positions giving them different values. This makes the decimal system a **Positional System.** In the decimal system, places of ten make up the desired quantities.

Now is a good time to do Exercise two to learn about the tens and ones place.