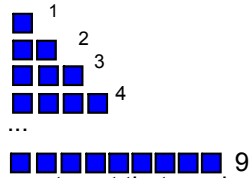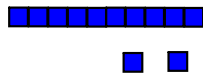1. Base 10

Why do we call it base 10? Because we have 10 different digits: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9

Those are the ONLY digits we have. This means using just each of the digits once, we can only count up to the number 9.

Once we get past that, we have to start grouping our numbers, and use the concept of PLACE VALUE.

For example this number, we would write as 12. This is because there is one group of ten, and 2 loose ones.

Place value means that the VALUE of a digit is determined by its PLACE in the number. For instance, in base 10, the value of each place increases by a factor of 10 as we move to the left. Each time we get to ten of something, we make a group.

1	A single one
10	Ten: A group of 10 ones
100	1 hundred: A group of 10 tens
1000	1 thousand: A group of 10 hundreds

Grouping things in this way makes it easier for us to understand big numbers. Which of these looks easier to understand?

1 2 3 , 4 5 6 , 7 8 9

hundred millions
ten millions
millions
hundred thousands
ten thousands
thousands
hundreds
tens
ones