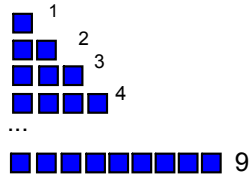


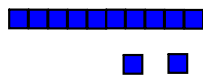
1. Base 10

Why do we call it base 10? Because we group in tens. Why? 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.

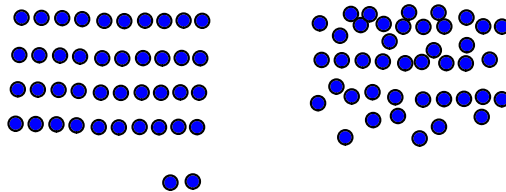


For example this number, we would write as 12. This is because there is one group of ten, and 2 loose ones.

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