

## 5. Using Inequalities (less than, greater than)

### Formation of Numbers

#### Greatest numbers

To make the greatest number, arrange the given digits in descending order.

**Example:** The greatest number using the digits 4, 5, 7, 0, 3 only once is 75,430.

#### Smallest numbers

To make the smallest number, arrange the given digits in ascending order.

**Example:** The smallest number using the digits 4, 5, 7, 0, 3 only once is 30457. We do not write 03457 because 0 at the starting of a number has no meaning and the actual value of 03457 is 3457.

### Comparison of Numbers

While comparing two numbers we have to remember the following steps:

**Step 1:** If the number of digits in the given numbers is not same, then the number with lesser number of digits will be smaller.

**Step 2:** If the number of digits in both the numbers is same, then

(a) first compare the digits at the first place from the left. The number with a greater digit is greater than the other number.

(b) if the numbers have the same digits at the first place, then compare the digits at the second place. The number with the greater digit is the greater one. Continue the process till you get unequal digits at the corresponding places.

Let us consider an example:

**Example:** Compare the numbers 237752 and 237786.

**Solution:** First of all let us compare the number of digits in the given numbers. Both the numbers have six digits each. Now, let us compare the digits starting from the left. The first, second, third, and fourth digits from the left are the same in both the numbers 237752 and 237786. The fifth digit in the number 237786 is 8 which is greater than the corresponding digit in the number 237752 which is 5. So, **237786 is greater than 237752.**

237752

237786

