Counting Digits

We know that any **integer number** when **divided by 10** gives the **last digit as remainder** and the **leftover as quotient**. Repeating the same until quotient becomes 0 is what we usually do **using while loops** and constantly updating the number. This can be done in a much simpler and lesser loc if we use some maths.

Instead of the usual while loop approach that would take **O(no of digits)** time complexity , this could be done in just **O(1)** time complexity in **2 basic ways**.

If **"n"** is some integer number then
No_of_digits = [(int)Math.log10(n) + 1] or [(""+n).length()]

Program

```
static int countDigits (int n) {

    int No_of_digits = (int)Math.log10(n) + 1;     // Using Math.log10

    No_of_digits = (""+n).length();          // Using string.length


    return No_of_digits;

    }
```