1) Count Digit

Three Approach - Iterative Solution
Recursive Approach
Logarithmic Approach

Approach 1

```
class Solution {
    public int countDigit(int n) {
        if (n == 0)
            return 1;
        int count = 0;
        while( n != 0)
        {
            n = n/10 ;
            Count ++;
        }
        return count;
    }
}
```

Tracing

n = 5 count = 0 1

5 != 0 (TRUE)

↳ n = 5/10

n = 0

count ++

Count = 1

n = 0 != 0 (False)

loop ends

n = 689

count = 0 1 2 3

689 != 0

n = 689/10

= 68 c++

68 != 0

n = 68/10

= 6 c++

6 != 0

n = 6/10

= 0 c++

count = 3