

Approach 3 =
By logarithm

in mathematics \log_{10} of a number tells how many times 10 must be multiplied itself to reach that number

EX:

$$\text{for } n = 100$$

$$\log_{10} 100 = 2$$

$$\log_{10} 1000 = 3$$

$$\log_{10} 999 \approx 2.99$$

As you can see for any K -digit number the \log_{10} value will always be b/w $(K-1)$ and K , specifically it returns $(K-1) + \text{some decimal}$

So by adding 1 we can shift that range

EX: For 5 digit number 58964

$$\log_{10} 58964 \approx 4.77$$

$$4.77 + 1 = 5.77$$

By taking the floor value we can get the count of digits

main logic: $\text{floor}(\log_{10}(n) + 1)$