Long number

October 3, 2020

Task

How many digits has the number created by writing all numbers from 1 to k one after another. For example if we take k=15 the created number has 21 digit:

123456789101112131415

Input

The first row contains one whole number representing the number of test cases. For each test case there is one row with the number k with $1 \le k \le 10^{10}$

Example input

5

8

15

99

100

997

Output

For each test case you need to output one row. Each row consists of the index of its respective test case followed by exactly one space and then number of digits asked.

Example output

1 8

2 21

3 189

 $4\ 192$

5 2883