

Digit

Jojo, a constructor, was given a task to give the new house number. Given N house, he needs to know how many number of each digit are needed to number the house from 1 to N. Help him!

Format Input

The input begins with an integer T indicating the number of test cases. In each test case, there is an integer N indicating the number of houses.

Format Output

For each test case, output the number needed for each digit. The output will be in format " $a_0 a_1 a_2 a_3 a_4 a_5 a_6 a_7 a_8 a_9$ ", where a_i is the number of digit i needed.

Constraints

$1 \leq T \leq 100$

$1 \leq N \leq 1,000,000$

Sample Input 1	Sample Output 1
3	Case #1: 1 2 1 1 1 1 1 1 1 1
10	Case #2: 11 21 20 20 20 20 20 20 20 20
100	Case #3: 2893 4001 4000 4000 4000 4000 4000 4000 4000 4000
10000	