H. Non-Decreasing Digits

Input File: H.txt
Run Time Limit: 10 sec

A number is said to be made up of non-decreaing digits if all the digits to the left of any digit are less than or equal to that digit. For example, the four-digit number 1234 is composed of digits that are non-decreasing. Some other four-digit numbers that are composed of non-decreasing digits are 0011, 1111, 1112, 1122, 2223. As it turns out, there are exactly 715 four-digit numbers composed of non-decreasing digits.

Notice that leading zeroes are required: 0000, 0001, 0002 are all valid four-digit numbers with non- decreasing digits. For this problem, you will write a program that determines how many such numbers there are with a specified number of digits.

Input:
The first line of input contains a single integer P, $(1 \leq P \leq 1000)$, which is the number of data sets that follow. Each data set is a single line that contains the data set number, followed by a space, followed by a decimal integer giving the number of digits N, $(1 \leq N \leq 64)$.

Output:
For each data set there is one line of output. It contains the data set number followed by a single space, followed by the number of N digit values that are composed entirely of non-decreasing digits. No result will not exceed 100,000,000,000.

Sample Input	Expected Output
3 1 2 2 3 3 4	1 55 2 220 3 715