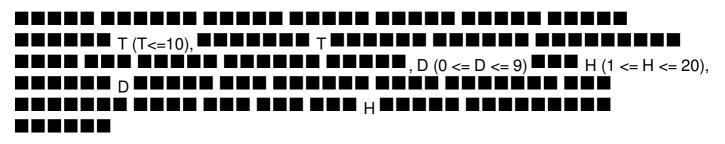
Digital Triangle

Print numbers to form a shape of triangle using the specified numbers as shown in the sample output.



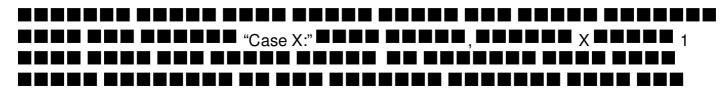
Input

First line of input contains the number of test cases T (T <= 10), each of the next T lines contains two integers D (0 <= D <= 9) and H (1 <= H <= 20), where D is the digit which is to be used to draw the triangle, and H is the height of the triangle.



Output

For each input case, first print the case number starting from 1 as in "Case X:" in a single line, where X represents the case number. Then from the next line, start printing the output, the desired triangle as shown in sample output.



Example

Input:

- 214
- 35

Output:

Case 1: 1 11 111 111 Case 2: 3 33