
Challenge Sum

Given a number N, your task is to print N, reverse number of N, sum of N with the reverse of N, and reverse number from the sum of N with the reverse of N without the leading zero.

Here are the example about without leading zero:

If the number is 123, then print 123

If the number is 00123, then print 123

Format Input

The first line contains an integer T - the number of test cases ($1 \leq T \leq 100$).

The second line contains an integer N ($1 \leq N \leq 10^{15}$).

Format Output

For each test case, print "Case #X: ", where X is the test case number followed by N, reverse number of N, sum of N with the reverse of N, and reverse number from the sum of N with the reverse of N without the leading zero.

Constraints

$1 \leq T \leq 100$

$1 \leq N \leq 10^{15}$

Sample Input	Sample Output
1 39	Case #1: 39 93 132 231

Note

Reverse of N is 614.

Sum of N with the reverse is $416 + 614 = 1030$.

The reverse number from its sum is 0301. Because we must print without leading zero, then we must print 301.

Please note that the output has no trailing space.