# A + B

## Description

You are given a string of digits. Rearrange those digits to build two nonnegative integers ***a*** and ***b*** such that the sum ***a*** + ***b*** is as large as possible.

Each number must consist of at least one digit. Leading zeros are not allowed, but the number zero consisting of a single digit 0 is allowed. You have to use each digit exactly as many times as it occurs in the given input string.

## Input

Your program is to read from standard input. The input consists of ***T*** test cases. The number of test cases ***T*** is given in the first line of input. For each test case, a blank line is given on the first line. A string of digits are given on the second line. If there are more than 2 digits in the string, not all of them are zeros. The number of digits in each test case is between 2 and 16, inclusive.

## Output

Your program is to write to standard output. For each test case, output a single line with a single integer: the largest sum that can be achieved.

## Sample

| Input | Output |
| --- | --- |
| 4<br><br>001<br><br>175<br><br>21<br><br>444444 | 10<br>76<br>3<br>44448 |