

Problem G: Digit Shuffle

Filename: shuffle

Time limit: 1 second

You will be given a number n , and asked to find the largest number that uses the same digits as n . This number may be equal to n .

Input

The input will be a single positive integer n ($n \leq 10^{100}$), without any leading 0s.

Output

The output will be the largest number that uses the same digits as n .

Samples

Input	Output
101	110

Input	Output
842	842

Input	Output
90523	95320

Input	Output
3489345913293450341	9998554444333332110