

# Smallest Permuted Integer

You have participated in an online cyber security talent hunt. Your task is to break the security of the locker containing bumper price. The locker is locked by some cipher code in the form of a number. Your task is to unlock the locker that can be done only by deciphering the code as the smallest (in magnitude) permutation of the digits of the number and it never starts with zero.

Write an algorithm to decipher the code.

## Input:

The input consists of an integer ciphercode the ciphered code of the locker.

## Output:

Print an integer representing the deciphered code.

## Constraints:

$-10^5 \leq \text{ciphercode} \leq 10^5$

## Note:

There exists a possible answer for every input.

## Example:

### Input:

310

### Output:

103

### Explanation:

The smallest permutation formed with digits 3, 1 and 0 is 103.

So, the output is 103.