

## B. The number on the board

time limit per test: 2 seconds  
memory limit per test: 256 megabytes  
input: standard input  
output: standard output

Some natural number was written on the board. Its sum of digits was not less than  $k$ . But you were distracted a bit, and someone changed this number to  $n$ , replacing some digits with others. It's known that the length of the number didn't change.

You have to find the minimum number of digits in which these two numbers can differ.

### Input

The first line contains integer  $k$  ( $1 \leq k \leq 10^9$ ).

The second line contains integer  $n$  ( $1 \leq n < 10^{100000}$ ).

There are no leading zeros in  $n$ . It's guaranteed that this situation is possible.

### Output

Print the minimum number of digits in which the initial number and  $n$  can differ.

### Examples

input
3 11
output
1

input
3 99
output
0

### Note

In the first example, the initial number could be 12.

In the second example the sum of the digits of  $n$  is not less than  $k$ . The initial number could be equal to  $n$ .