

## C. Drazil and Factorial

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

Drazil is playing a math game with Varda.

Let's define for positive integer  $x$  as a product of factorials of its digits. For example, .

First, they choose a decimal number  $a$  consisting of  $n$  digits that contains at least one digit larger than 1. This number may possibly start with leading zeroes. Then they should find maximum positive number  $x$  satisfying following two conditions:

1.  $x$  doesn't contain neither digit 0 nor digit 1.
2.  $x = a$ .

Help friends find such number.

### Input

The first line contains an integer  $n$  ( $1 \leq n \leq 15$ ) — the number of digits in  $a$ .

The second line contains  $n$  digits of  $a$ . There is at least one digit in  $a$  that is larger than 1. Number  $a$  may possibly contain leading zeroes.

### Output

Output a maximum possible integer satisfying the conditions above. There should be no zeroes and ones in this number decimal representation.

### Examples

input
4 1234
output
33222
input
3 555
output
555

### Note

In the first case,

### Codeforces Round #292 (Div. 2)

Finished

### → Virtual participation

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Start virtual contest

### → Problem tags

greedy math sortings

No tag edit access

### → Contest materials

- Announcement 
- Tutorial 