Problem C. Square of Maximum Number

Time limit   1000 ms
Mem limit   131072 kB

A three-digit number is given. Rearrange its digits in such a way that the largest possible number is obtained. Then calculate the square of that largest number and print it.

Input

A three-digit positive number is given.

Output

Print the square of the largest number.

Example

Input	Output
327	535824

Explanation

From the digits of the number 327, we get the number 732. The square of this number is 535824.