A. Reflection

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

For each positive integer n consider the integer $\psi(n)$ which is obtained from n by replacing every digit a in the decimal notation of n with the digit $(9 - a)$. We say that$\psi(n)$ is the *reflection* of n. For example, reflection of 192 equals 807. Note that leading zeros (if any) should be omitted. So reflection of 9 equals 0, reflection of 91 equals 8.

Let us call the *weight* of the number the product of the number and its reflection. Thus, the weight of the number 10 is equal to $10 \cdot 89 = 890$.

Your task is to find the maximum weight of the numbers in the given range $[l, r]$ (boundaries are included).

Input

Input contains two space-separated integers l and r ($1 \le l \le r \le 10^9$) — bounds of the range.

Output

Output should contain single integer number: maximum value of the product $n \cdot \psi(n)$, where $l \le n \le r$.

Please, do not use `%lld` specificator to read or write 64-bit integers in C++. It is preferred to use `cout` (also you may use `%I64d`).

Examples

input
3 7
output
20

input
1 1
output
8

input
8 10
output
890

Note

In the third sample weight of 8 equals $8 \cdot 1 = 8$, weight of 9 equals $9 \cdot 0 = 0$, weight of 10 equals 890.

Thus, maximum value of the product is equal to 890.