Problem C
Prefix and Suffix
Time Limit: 1 seconds
Memory Limit: 256 Megabytes

Knowing that Duy is going to visit Huy house, Huy decided to make a wonderful meal to welcome Duy. After the meal, they start to talk about some problems they have to face in the Finalize ACM-ICPC competition. Suddenly, Duy remembers a problem that he has met before.

The problem is finding a number c where number **a** is the prefix of number **c** and number **b** is the suffix of the number c. With number X = **23894756**, the prefix of **X** can be **2, 23**… and the suffix of **X** can be **6, 56...** For example: **a = 1234** and **b = 7890** then c could be one of these numbers (**123407890, 12347890, 1234567890, ….**).

Duy tells that problem to Huy and he can solve it easily. But if the problem makes him find the shortest length of c then he can not solve it because it is too challenging for him. Can you help Huy solve that problem?

Input

The first line contains **2** positive integers **a** and **b** (a,b < 10^{100000})

Output

Print one line contains number **c** where **a** is prefix of **c** and **b** is suffix of **c** and **c** has the shortest length.

Examples

Input
87364 64789
Output
87364789

Input
123 456
Output
123456