
Strings

Input file: standard input
Output file: standard output
Time limit: 2 second
Memory limit: 64 megabytes

Given two strings A and B . Print three lines contain the following:

- The size of the string A and size of the string B separated by a space
- The string produced by **concatenating** A and B ($A + B$).
- The two strings separated by a single space respectively, after **swapping** their first character.

For more clarification see the example below.

Input

The first line contains a string A ($1 \leq |A| \leq 10$) where $|A|$ is the length of A .

The second line contains a string B ($1 \leq |B| \leq 10$) where $|B|$ is the length of B .

Output

Print the answer required above.

Examples

standard input	standard output
abcd ef	4 2 abcdef ebcd af

Note

Declaration:

```
string a = "abc";
```

Size:

```
int len = a.size();
```

Concatenate two strings:

```
string a = "abc";  
string b = "def";  
string c = a + b; // c = "abcdef".
```

Accessing i element:

```
string s = "abc";  
char    c0 = s[0];    // c0 = 'a'  
char    c1 = s[1];    // c1 = 'b'  
char    c2 = s[2];    // c2 = 'c'  
s[0] = 'z';           // s = "zbc"
```