https://codeforces.com/group/MWSDmqGsZm/contest/219856/problem/A

A. Create A New String

Given two strings S and T. Print **2** lines that contain the following in the same order:

1. Print the **length** of S and T separated by space.
2. Print a **new string** that contains S and T separated by a space.

For more clarification see the example below.

Input

The first line contains a string S $(1 \leq |S| \leq 10^3)$ where $|S|$ is the length of S.

The second line contains a string T $(1 \leq |T| \leq 10^3)$ where $|T|$ is the length of T.

Output

Print the answer required above.

Examples

input

```
LEVEL
ONE
```

output

```
5 3
LEVEL ONE
```

input

```
Programming
contest
```

output

```
11 7
Programming contest
```

https://codeforces.com/group/MWSDmqGsZm/contest/219856/problem/b

B. Let's use Getline

Given a string S. Print the string S from the beginning to the first '\' character without printing the '\'.

Hint: use function **getline(cin, s)**.

Input

Only one line contains a string S $(1 \leq |S| \leq 10^6)$ where |S| is the length of the string.

It's guaranteed that S will contain '\' symbol.

Output

Print the answer required above.

Examples

input

```
Egyptian collegiate programming\ contest
```

output

```
Egyptian collegiate programming
```

input

```
google \or facebook
```

output

```
google
```

https://codeforces.com/group/MWSDmqGsZm/contest/219856/problem/E

E. Count

Given a string S. Print the **summation** of its digits.

Input

Only one line contains a string S $(1 \leq |S| \leq 10^6)$ where |S| is the length of the string.

It's guaranteed that S contains only digits from 0 to 9.

Output

Print the answer required above.

Example

input

```
351
```

output

```
9
```

Note

First Test :

3 + 5 + 1 = 9 .