

Create a program that executes changes over a string. First, you are going to **receive the string**, then commands.

You will be receiving **commands** until the **"End"** command. There are **six** possible commands:

- **"Translate {char} {replacement}"**
 - Replace all occurrences of the **given char** with the **given replacement**, then **print the string**.
- **"Includes {substring}"**
 - Check if the current string **includes the given substring** and **print "True" or "False"**.
- **"Start {substring}"**
 - Check if the current string **starts with the given substring** and **print "True" or "False"**.
- **"Lowercase"**
 - Make the **whole string lowercased**, then **print it**.
- **"FindIndex {char}"**
 - Find the **index of the last occurrence of the given char**, then **print it**.
- **"Remove {startIndex} {count}"**
 - Remove the **given count of characters** from the string, starting from the **start index**, then **print it**.

Input

- On the **first line**, you are going to **receive the string**.
- On the following lines, until the **"End"** command is received, you will be receiving commands.
- All commands are **case-sensitive**.
- The **input will always be valid**.

Output

- **Print the output of every command in the format described above.**

Examples

Input	Output
//Th15 I5 MY 5trING!//	//This Is MY strING!//
Translate 5 s	False
Includes string	True
Start //This	
Lowercase	//this is my string!//
FindIndex i	16
Remove 0 10	my string!//
End	