## Problem 1 - The Imitation Game

The problem for exam preparation for the [Programming Fundamentals Course @SoftUni](https://softuni.bg/courses/programming-fundamentals-csharp-java-js-python).

Submit your solutions in the SoftUni judge system at [https://judge.softuni.org/Contests/Practice/Index/2525#0](https://judge.softuni.org/Contests/Practice/Index/2525" \l "0).

*During World War 2, you are a mathematician who joined the cryptography team to decipher the enemy's enigma code. Your job is to create a program to crack the codes.*

On the first line of the input, you will receive the **encrypted message**. After that, until the "Decode" command is given, **you will be receiving strings** with **instructions** for different **operations** that need to be performed upon the **concealed message** to **interpret** **it** and reveal its true content. There are several types of instructions, split by '|'

* "Move {number of letters}"**:**
  + **Moves** the **first n letters** to the **back** of the string
* "Insert {index} {value}"**:**
  + **Inserts** the given value **before the given index** in the string
* "ChangeAll {substring} {replacement}"**:**
  + **Changes** **all occurrences** of the given substring with the replacement text

### Input / Constraints

* On the first line, you will receive a string with a message.
* On the following lines, you will be receiving commands, split by **'|' .**

### Output

* After the "Decode" command is received, print this message:  
  **"The decrypted message is: {message}"**

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| zzHe  ChangeAll|z|l  Insert|2|o  Move|3  Decode | The decrypted message is: Hello |
| **Comments** | |
| **ChangeAll|z|l**  zzHe → llHe (We replace all occurrences of 'z' with 'l')  **Insert|2|o**  llHe → lloHe (We add an 'o' before the character on index 2)  Move|3  lloHe → Hello (We take the first three characters and move them to the end of the string)  Finally, after receiving the **"Decode"** command, we print the resulting message. | |
| **Input** | **Output** |
| owyouh  Move|2  Move|3  Insert|3|are  Insert|9|?  Decode | The decrypted message is: howareyou? |

### JS Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| [  'zzHe',  'ChangeAll|z|l',  'Insert|2|o',  'Move|3',  'Decode',  ] | The decrypted message is: Hello |
| **Comments** | |
| **ChangeAll|z|l**  zzHe → llHe (We replace all occurrences of 'z' with 'l')  **Insert|2|o**  llHe → lloHe (We add an 'o' before the character on index 2)  Move|3  lloHe → Hello (We take the first three characters and move them to the end of the string)  Finally, after receiving the **"Decode"** command, we print the resulting message. | |
| **Input** | **Output** |
| [  'owyouh',  'Move|2',  'Move|3',  'Insert|3|are',  'Insert|9|?'  'Decode',  ] | The decrypted message is: howareyou? |