Problem 2 - String Rearrangement

Write a C program that reads a line from the console and extracts all text pieces inside curly brackets **{ }**. The program should then read commands line by line and execute them on the resulting text.

For example, we are given the line

aide na moreto|detelini**{**12345**}**|saxi{q|konf}|h**{**67**}**

We are looking for **text inside curly brackets**. Moreover, the opening and closing curly bracket should be **inside a block together**. A **block** is a sequence of characters, separated by **|** from other blocks. There will always be a maximum of one sequence, enclosed in curly brackets { **}** inside a block. The only sequences that match these rules are 12345 and 67 (notice how we skip **q|konf**, because it is not inside a single block). We concatenate them and the result is:

1234567

We then start reading commands, each at separate line until we read "**end**". Each command will be in the format **swap {positionA} {positionB} {size}**. We must swap **size** bytes from **positionA** with **size** bytes from **positionB**.
For example, given the command **swap 0 4 2**, we should do the following:

0	1	2	3	4	5	6	7
'1'	'2'	'3'	'4'	'5'	'6'	'7'	'\0'

→

0	1	2	3	4	5	6	7
'5'	'6'	'3'	'4'	'1'	'2'	'7'	'\0'

We do this for each command and stop once "**end**" is entered. We print the resulting string on the console - **5634127**.

Input

The input will be read from the standard input (console).

- On the first line, you will receive the text.
- Every next line will hold a command in the format "**swap {positionA} {positionB} {size}**".
- Command "**end**" denotes end of input.

Output

The output should be printed on the console. Print the **string** after all commands have been executed. If a command holds invalid parameters (e.g. position -10) or the position + size would exceed the buffer, an error message should be printed - "**Invalid command parameters**".

Constraints

- The input text will be a string of **unknown size**.
- All character sequences inside curly brackets **{ }** will be in the range [0…64].
- There won't be any nested curly brackets (e.g. **{ t {e}**) inside a single block.
- There will be a maximum of **one valid curly brackets sequence** inside a single block.
- The positions and size arguments in each command **can be invalid** (e.g. size = -1).
- The program should display **no memory leaks**, **buffer overflows** or **dangling pointer anomalies**.

Examples

Input	Output
aide na moreto|pendel{12345}|saxi{q|be}|h{67} swap 0 4 2 end	5634127

Input	Output
{text}|{}|}{alphabet} swap -5 2 3 swap 0 4 20 end	Invalid command parameters Invalid command parameters textalphabet