Lab: Strings and Streams

Please submit your solutions (source code) of all below-described problems in Judge

1. Reverse Strings

Write a program that:

- Read a series of words until you receive a word "**end**"
- Reverse each given word
- Prints each reversed word in the format:
  "**{word} = {reversed word}**"

Examples

Input	Output
helLo Softuni bottle end	helLo = oLleh Softuni = inutfoS bottle = elttob
Dog caT chAir end	Dog = goD caT = Tac chAir = riAhc

2. Repeat Strings

Write a program that:

- Read an **space-separated number of strings** from the console
- Each string has to be **repeated N times in the output**, where **N is the length of the string**
- Print the **resulting string**

Note: Do not use separator or new line between the strings.

Examples

Input	Output
hi abc add	hihiabcabcabcaddaddadd
work	workworkworkwork
ball	ballballballball

3. Substring

Write a program that:

- Read a **string (first)** from the first line of the console
- Read **another string (second)** from the second line of the console
- Remove **all of the occurrences of the first string in the second string** until there is no match

- Print the **remaining string**

Examples

Input	Output	Comment
ice kicegiciceeb	kgb	We remove ice once, and we get "kgiciceeb" We match "ice" one more time, and we get "kgiceb" There is one more match. The final result is "kgb"
e fixture	fixtur	

4. Digits, Letters and Other

Write a program that:

- Read a string from the first line of the console
- Prints:
  - On the first line: all the digits
  - On the second line: all the letters
  - On the third line: all the other characters

Note: There will always be at least one digit, one letter and another character.

Examples

Input	Output
Agd#53Dfg^&4F53	53453 AgdDfgF #^&
a1!	1 a !