Problem 83: ZIPPER text

Difficulty: Medium

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Problem Background

Did you know that the zipper was invented by an Electrical Engineer? Maybe that's the reason some parents say things like "you can major in whatever you want to in college, as long as it has the word engineering at the end". Anyway, the zipper has been holding together fabric and material since 1913. Today, you will tackle the zipper text cipher, which holds two different messages in one.

Problem Description

The zipper text cipher takes two messages – one in upper case letters, and the other in lower case letters – and zips them up into a single encoded message. Your task will be to decode such a message.

Sample Input

The first line of your program's input, received from the standard input channel, will contain a positive integer representing the number of test cases. Each test case will include:

- The first line of each test case will contain a single integer. This is the number of lines in the upper case message (we'll call it U).
- The second line of each test case will contain U integers separated by a single space each. These are the line lengths of the upper case message.
- The third line of each test case will contain a single integer. This is the number of lines in the lower case message (we'll call it L).
- The fourth line of each test case will contain L integers separated by a single space each. These are the line lengths of the lower case message.
- The remaining lines of the file will contain the encoded message. No line in the encoded message will be longer than 80 characters. Spaces in the uppercase message will have been replaced by a minus sign, and spaces in the lowercase message will have been replaced by an equal sign. There is no punctuation in either message

Note: because of the format of the input file, the number of test cases will always be 1!

```
1
6
35 26 28 17 21 18
```

```
5
22 26 22 23 22
I-REi=hopeA=LLyYou-=aHrOe=PE-YcOaU-LIrKefEu-THIlS-PwitROh=mBLEinMWus=sEi-TgHnI=a
NK-IT-ISn-PREdTTY-COO=LCequalHsECKne-iTthHeE-r=ofL=tOWhER-em=cCAhSaE-MEnSSAGEFge
iORf=y-A-oLu=cIaTTlLEl-H=tIoupNpTCODerE-cQUEaSTs-eoIS-Ar=WESOMEGtOODo-LlowUCK-er
cEVasEe=RoYnO=theNmE
```

Sample Output

Your program should output the following:

- The uppercase message, using correct line lengths and with spaces restored.
- A blank line.
- The lowercase message, using correct line lengths and with spaces restored.

```
I REALLY HOPE YOU LIKE THIS PROBLEM
WE THINK IT IS PRETTY COOL
CHECK THE LOWER CASE MESSAGE
FOR A LITTLE HINT
CODE QUEST IS AWESOME
GOOD LUCK EVERYONE

i hope you are careful
with minus sign and equals
neither of them change
if you call touppercase
or tolowercase on them
```