

#### 4- Numbers Game

**Input File: NumbersGameIn.txt**

An encrypted message is sent to you in which the letters of each word have been randomly rearranged, and the spaces between words have been eliminated. For example: `osuurcraetempnf`. Then a decryption key is sent to you that contains a sequence of integers, each separated by a space. The 1<sup>st</sup> integer in this sequence is the character number in the encrypted message that will be the 1<sup>st</sup> character in the decrypted message, the 2<sup>nd</sup> integer is the character number in the encrypted message that will be the 2<sup>nd</sup> character in the decrypted message, etc. Integers greater than 20 insert a space into the decrypted message.

For example, using the integer sequence `6 1 12 14 10 4 7 9 2 99 8 5 11 21 15 3 13` to decrypt the message `osuurcraetempnf` yields the decrypted message `computers are fun`.

Your task is to produce the decrypted message given the encrypted message and the decryption key.

##### **Inputs:**

The first line of input will be the number of messages to decrypt, followed by three lines of input for each message. The first of these lines will contain the encrypted message. The second line will contain an integer that represents the number of integers, **n**, in the decryption key. The third line will contain a sequence of **n** integers, each separated by a space, which is the decryption key.

##### **Outputs:**

There will be one line of output per message that is the decrypted message.

##### **Sample Inputs**

```
2
osuurcraetempnf
17
6 1 12 14 4 10 9 7 2 99 8 5 11 21 15 3 13
uebso!emnaemsrdlvg
20
9 1 12 3 11 14 4 22 18 10 8 7 21 13 5 16 17 2 15 6
```

##### **Sample Outputs**

```
computers are fun
numbers game solved!
```