Siena College's 31st Annual High School Programming Contest Sponsored by Transfinder April 13, 2018

Gold Problem #1: Compressing is not Depressing

<u>Background Information:</u> Compression is useful to computer scientists because it may reduce the amount of memory that must be used to store data. It may also reduce transmission time. Text, images, video and other types of data can be compressed. There are a number of tradeoffs that computer scientists consider when compressing data.

Consider the following text:

Nw thnk f wrld wth n vwls. t lst th wrld f lttrs tht r sd n th vrs lnggs sch s nglsh, tln, nd Grmn. Wht wld ths crzy wrld b lk wtht ths nn-cnsnnts?

This text requires fewer bytes of memory than the same text without the elimination of its vowels.

In this problem, you will be given a word, followed by indices which indicate characters for removal. The output will be the new word with the designated letters removed. The new word will have at least 1 letter.

Programming Problem:

Input: A single word of between 1 and 40 upper case letters followed by a second line that will have a positive integer N which is less than the length of the input word, followed by N distinct positive integer indices (on separate lines) indicating which letters will be removed from the input word. The indices will not be greater than the length of the word. The first letter has index = 1. Output: The new word with the appropriate characters removed.

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Example 1: Input:

POST
1
2
Output:
PST

Example 2: Input:
AUTOMOBILE
3
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3

6
Output:
AUOMBLE

Example 3: Input:

CAT
2
1
2
Output:
T