

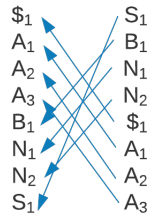
9K Generate the Last-to-First Mapping of a String

Last-to-First Mapping Problem

Construct a Last-to-First Array of a Burrows-Wheeler Transform.

Input: A string *Transform* representing the Burrows-Wheeler transform of an unknown string *Text*.

Output: An array *LastToFirst* that provides the following information: given a symbol at position i in *LastColumn* of the Burrows-Wheeler matrix of *Text*, LASTTOFIRST(i) reveals its position in *FirstColumn*.



Formatting

Input: A string *Transform* representing the Burrows-Wheeler transform of an unknown string *Text*.

Output: A space-separated list of integers representing the array *LastToFirst*.

Constraints

- The length of *Transform* will be between 1 and 10^3 .
- The value of i will be between 1 and 10^3 .

Test Cases

Case 1

Description: The sample dataset is not actually run on your code.

Input:

smnpbnaaaaa\$a

Output:

13 8 9 12 7 10 11 1 2 3 4 5 0 6

Case 2

Description: There are no repeat characters in *Text*.

Input:

T\$ACG

Output:

4 0 1 2 3

Case 3

Description: *Text* is made up of only one character.

Input:

AAAAAAAAAA\$

Output:

1 2 3 4 5 6 7 8 9 10 0

Case 4

Description: *Text* is palindromic or has substrings that are palindromic.

Input:

TGCG\$AA

Output:

5 0 3 2 6 1 4

Case 5

Description: A larger dataset of the same size as that provided by the randomized autograder. Check input/output folders for this dataset.