

### 3B Reconstruct a String from its Genome Path

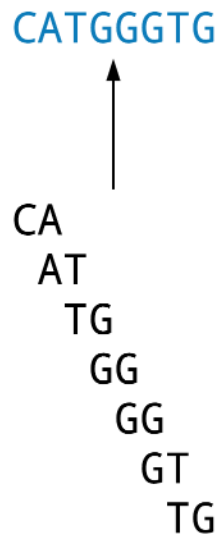
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#### String Spelled by a Genome Path Problem

Find the string spelled by a genome path.

**Input:** A sequence of  $k$ -mers  $Pattern_1, \dots, Pattern_n$  such that the last  $k - 1$  symbols of  $Pattern_i$  are equal to the first  $k - 1$  symbols of  $Pattern_{i+1}$  for  $i$  from 1 to  $n - 1$ .

**Output:** A string  $Text$  of length  $k + n - 1$  where the  $i$ -th  $k$ -mer in  $Text$  is equal to  $Pattern_i$  for all  $i$  from 1 to  $n$ .



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#### Formatting

**Input:** A space-separated list of strings  $Patterns$ .

**Output:** A string  $Text$ .

#### Constraints

- The number of patterns in the string-set  $Pattern$  will be between 1 and  $10^4$ .
- The length of any one pattern in  $Pattern$  will be between 1 and  $10^2$ .

## Test Cases

### Case 1

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

**Input:**

ACCGA CCGAA CGAAG GAAGC AAGCT

**Output:**

ACCGAAGCT

### Case 2

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

**Input:**

CTT TTT TTG

**Output:**

CTTTG

### Case 3

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

**Input:**

TT TG GT TT

**Output:**

TTGTT

### Case 4

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

**Input:**

AGCAGATC GCAGATCA CAGATCAT AGATCATC GATCATCG ATCATCGG

**Output:**

AGCAGATCATCGG

### Case 5

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