

### 3H Reconstruct a String from its $k$ -mer Composition

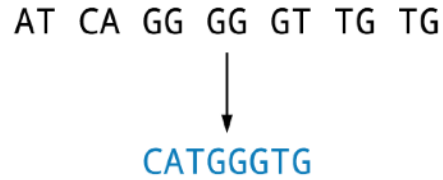
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#### String Reconstruction Problem

*Reconstruct a string from its  $k$ -mer composition.*

**Input:** A collection of  $k$ -mers *Patterns*.

**Output:** A string *Text* with  $k$ -mer composition equal to *Patterns*.



#### Formatting

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

**Output:** A string *Text* with  $k$ -mer composition equal to *Patterns* (if multiple answers exist, you may return any one).

#### Constraints

- The number of strings in *Patterns* 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:**

3

ACG CGT GTG TGT GTA TAT ATA

**Output:**

ACGTGTATA

### Case 2

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

**Input:**

2

GG AC GA CT

**Output:**

GGACT

### Case 3

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

**Input:**

3

AAC AAC ACG ACT CGA GAA

**Output:**

AACGAACT

### Case 4

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

**Input:**

4

CTAC CTCC TCCT ACTC CCTC CCTA TACT

**Output:**

CCTACTCCTC

### Case 5

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

**Input:**

3  
CCC CCC CCC TCC CCC CCG CCC CCC CCC

**Output:**

TCCCCCCCCCG

### Case 6

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

**Input:**

2  
AG AT AA GA GG GT TA TG TT AT

**Output:**

AAGTTGGATAT

### Case 7

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

**Input:**

3  
ACG CGT GTA TAC

**Output:**

ACGTAC

### Case 8

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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.