

### 3A Generate the $k$ -mer Composition of a String

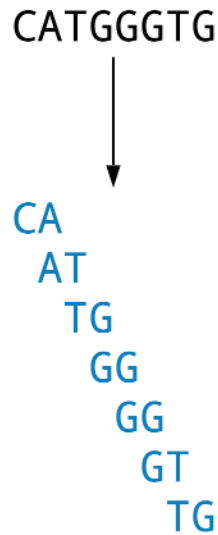
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#### String Composition Problem

Generate the  $k$ -mer composition of a string.

**Input:** An integer  $k$  and a string  $Text$ .

**Output:** The collection of  $k$ -mers  $\text{COMPOSITION}_k(Text)$ .



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#### Formatting

**Input:** A integer  $k$  followed by a string  $Text$ .

**Output:** A space-separated list of  $k$ -mer strings representing  $\text{COMPOSITION}_k(Text)$  (the  $k$ -mers can be provided in any order).

#### Constraints

- The value of  $k$  will be between 1 and  $10^3$ .
- The length  $Text$  will be between 1 and  $10^4$ .
- No pattern is a prefix of another pattern.

## Test Cases

### Case 1

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

**Input:**

5  
CAATCCAAC

**Output:**

CAATC AATCC ATCCA TCCAA CCAAC

### Case 2

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

**Input:**

3  
TCGAA

**Output:**

TCG CGA GAA

### Case 3

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

**Input:**

2  
CCCCCCC

**Output:**

CC CC CC CC CC CC

### Case 4

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

**Input:**

4  
ACGT

**Output:**

ACGT

### 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.