

## 1C Find the Reverse Complement of a String

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### Reverse Complement Problem

Find the reverse complement of a DNA string.

**Input:** A DNA string *Pattern*.

**Output:** The reverse complement of the string *Pattern*.



GGTCATCGACA  
CCAGTAGCTGT

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### Formatting

**Input:** A DNA string *Pattern*.

**Output:** A string representing  $\overline{Pattern}$ , the reverse complement of *Pattern*.

### Constraints

- The length of *Pattern* will be between 1 and  $10^4$ .
- *Pattern* will be a DNA string.

## Test Cases

### Case 1

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

**Input:**

AAAACCCGGT

**Output:**

ACCGGGTTTT

### Case 2

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**Description:** This test dataset performs two checks. First, it makes sure that you didn't forget to complement *Pattern* (i.e. you reversed *Pattern*, but not complemented), which would have an output of CACACA. Then, it makes sure that you didn't forget to reverse *Pattern* (i.e. you complemented *Pattern*, but not reversed), which would have an output of TGTGTG.

**Input:**

ACACAC

**Output:**

GTGTGT

### Case 3

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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.