

Given a nucleotide  $p$ , we denote its complementary nucleotide as  $\bar{p}$ . The **reverse complement** of a string  $Pattern = p_1 \dots p_n$  is the string  $\overline{Pattern} = \bar{p}_n \dots \bar{p}_1$  formed by taking the complement of each nucleotide in  $Pattern$ , then reversing the resulting string. We will need the solution to the following problem throughout this book:

**Reverse Complement Problem:** *Reverse complement a nucleotide pattern.*

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

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

**CODE CHALLENGE:** Solve the Reverse Complement Problem.

**Sample Input:**

AAAACCCGGT

**Sample Output:**

ACCGGTTTT

Extra Dataset

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