

10 Implement ApproximatePatternCount

Approximate Pattern Count Problem

Count all approximate occurrences of a pattern in a string.

Input: Strings *Pattern* and *Text* as well as an integer *d*.

Output: $\text{COUNT}_d(\text{Text}, \text{Pattern})$.

CGACTAGTTT
CGACGA
1 2

Formatting

Input: A DNA string *Pattern* followed by a DNA string *Text*, followed by an integer *d*.

Output: A single integer $\text{COUNT}_d(\text{Text}, \text{Pattern})$.

Constraints

- The length of *Pattern* will be between 1 and 10^1 .
- The length of *Text* will be between 1 and 10^3 .
- The integer *d* will be between 1 and 10^1 .
- Both *Pattern* *Text* and will be DNA strings.

Test Cases

Case 1

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

Input:

GAGG

TTTAGAGCCTTCAGAGG

2

Output:

4

Case 2

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