**Hamming Distance**

time limit per test: 2 seconds

memory limit per test: 256 megabytes

Hamming distance between two binary strings of equal length is the number of mismatches between every corresponding positions of the two strings.

Suppose A = “01001” and B = “11000” then the Hamming Distance between A and B is 2 because they only mismatch in position 1 and 5 (1- based indexing).

Now, you are given two string A and B of length n and m respectively. A and B contains only lowercase english letters.

You have to calculate the sum of hamming distance between every substring of length m of A and B.

Input:

The first line will contain two integers’ n and m.

Then the second line will contain two strings, A of length n and B of length m.

Output:

A single integer, the sum of hamming distance between every substring of length m of A and B .

Sample Input: Sample output:

5 3 8

abdas ace

3 5 0

abd acert

Explanation:

In the first sample case, HD(“abd, ace”) = 2, HD(“bda”, “ace”) = 3, HD(“das”, ”ace”) = 3 .

So the answer is 2 + 3 + 3 = 8.

Note: HD = Hamming Distance.