Problem H
Twin Friends

You meet two new friends who are twins. The name of the elder twin is A, which consists of N characters. While the name of the younger twin is B, which consists of M characters. It is known that $N \leq M$.

You want to call each of them with a nickname. For the elder twin, you want to pick any permutation of A as the nickname. For the younger twin, you want to remove exactly $M - N$ characters from any permutation of B. Denote the nicknames of the elder twin and the younger twin as A' and B', respectively.

You want the nicknames to satisfy the following requirement. For each i that satisfies $1 \leq i \leq N$, B'_i must be equal to either A'_i or the next letter that follows alphabetically after A'_i (if such a next letter exists).

Determine the number of different pairs of nicknames (A', B') that satisfy the requirement. Two pairs of nicknames are considered different if at least one of the nicknames are different. As the result might be large, find the answer modulo $998\,244\,353$.

Input

The first line consists of two integers N M ($1 \leq N \leq M \leq 200\,000$).

The second line consists of a string A of length N.

The third line consists of a string B of length M.

All strings consist of only upper-case letters.

Output

Output a single integer representing number of different pairs (A', B') that satisfy the requirement, modulo $998\,244\,353$.

Sample Input #1

```
3 4
AMA
ANAB
```

Sample Output #1

```
9
```

Explanation for the sample input/output #1

The 9 pairs are:

- (`AAM`, `AAN`),

- (AAM, ABN),
- (AAM, BAN),
- (AMA, ANA),
- (AMA, ANB),
- (AMA, BNA),
- (MAA, NAA),
- (MAA, NAB), and
- (MAA, NBA).

Sample Input #2

```
5 8
BINUS
BINANUSA
```

Sample Output #2

```
120
```

Explanation for the sample input/output #2

The 120 pairs are the pairs where A' is a permutation of BINUS and $B' = A'$.

Sample Input #3

```
15 30
BINUSUNIVERSITY
BINANUSANTARAUNIVERSITYJAKARTA
```

Sample Output #3

```
151362308
```

Sample Input #4

```
4 4
UDIN
ASEP
```

Sample Output #4

```
0
```