Arcadia Computing Contest 2 P2 - Tennis

Time limit: 2.0s **Memory limit:** 256M

Yingchi is practicing tennis for an upcoming tournament. Since he is particularly bad at serving, he decides to focus on his serving technique!

During his practice session, Yingchi serves N times. Each serve results in 3 different outcomes:

1. `S`: a successful serve worth 1 point
2. `P`: a perfect serve worth 2 points
3. `F`: a failed serve worth no points

However, Yingchi, like us, is human and gets nervous under pressure!

- After making a perfect serve, Yingchi's next serve cannot be perfect
- After making K consecutive successful or perfect serves, Yingchi's next serve will be a failed serve.

He records his practice session on a piece of paper, but it gets mixed up with someone else's practice logs! Yingchi looks to you to help him determine which practice logs could possibly be his.

Constraints

$1 \leq K \leq N \leq 10^6$

Input Specification

The first line will contain two integers, N and K.

The second line will contain a string of length N consisting of only `S`, `P`, and `F`, denoting the practice log.

Output Specification

If the practice log is possibly Yingchi's, output `YES` followed by the score of the practice session.

If it could not possibly be Yingchi's, output `NO`.

Sample Input 1

```
8 2
SSFSPFSF
```

Sample Output 1

```
YES
6
```

Explanation for Sample 1

There are no segments of consecutive `S` or `P` with length greater than 2, so it is valid. Then, there are 4 successful serves (worth 4 points) and 1 perfect serve (worth 2 points), for a total of 6 points.

Sample Input 2

```
6 2
SPSPSP
```

Sample Output 2

```
NO
```