Statement

For your next giant barbecue, you're planning to cook a giant skewer to share among all your guests.

Many ingredients are present on the skewer, and for aesthetic reasons you want to cut the skewer into several sub-parts whose ingredients will be symmetrical.

You don't care about the size of the shares, but you hate food waste, so your cutting will have to produce **exactly** one part for each guest, and your entire skewer will have to be used.

Data format

Entry

Line 1: two integers separated by a space, **N** the size of the giant skewer between 1 and 10 000, and **K** the number of guests between 1 and 500.
Line 2: a string of lowercase letters **N** representing the ingredients of the skewer.

Output

- If it is possible to cut the string into a series of **K** palindromes, return a possible series of palindromes on one row, separating them by spaces. To find out more about palindromes : https://en.wikipedia.org/wiki/Palindrome.
- If not, return *IMPOSSIBLE*.

Comments

- It is guaranteed that there will be a maximum of 100,000 valid palindromes in a given skewer.
- A portion containing a single ingredient is a valid palindrome.

Example

For input:

```
24 10
uvxuuxvvhikinwnjponopjfd
```

One possible solution is:
```
u v xuux vv h iki nwn jponopj f d
```

For input

```
6 3
abacdc
```

The expected release is:

```
IMPOSSIBLE
```

Indeed, there are solutions of 2, 4 or 6 shares, but none for 3 guests.