# F: Strawberry

## Time Limit: 1 second

How many `r`'s are there in the word `strawberry`? That's easy, it's obvious the answer is 3. But to LLMs, the answer is not so obvious, and early models would count the word to have only 2.

To further trick LLMs, you decide to take a string $s$, and repeat it $N$ times. Each time it's repeated, you change each letter to be the previous letter in the alphabet, with `a` instead becoming `z`. For example, the word `abacus` becomes `zazbtr`.

If we take the word `strawberry` and repeat it 3 times in total, we get the string `strawberryrsqzvadqqxqrpyuzcppw`. This string contains 5 occurrences of the letter `r`.

Given a word and the total number of times it is repeated, count the number of times `r` appears in it!

## Input

The first line of input contains a string $s$ of lowercase letters ($1 \leq |s| \leq 1000$).

The next line contains a single integer $N$ ($1 \leq N \leq 10^{15}$), the total number of times $s$ is repeated including the initial string, where each letter is replaced by the one before it in each repetition.

## Output

Output the number of times `r` appears in the final string.

| Sample Input 1 | Sample Output 1 |
|---|---|
| `strawberry`<br>`3` | `5` |

| Sample Input 2 | Sample Output 2 |
|---|---|
| `abacus`<br>`5` | `2` |

| Sample Input 3 | Sample Output 3 |
|---|---|
| `r`<br>`26` | `1` |

| Sample Input 4 | Sample Output 4 |
|---|---|
| r<br>27 | 2 |

| Sample Input 5 | Sample Output 5 |
|---|---|
| r<br>26000000000 | 1000000000 |