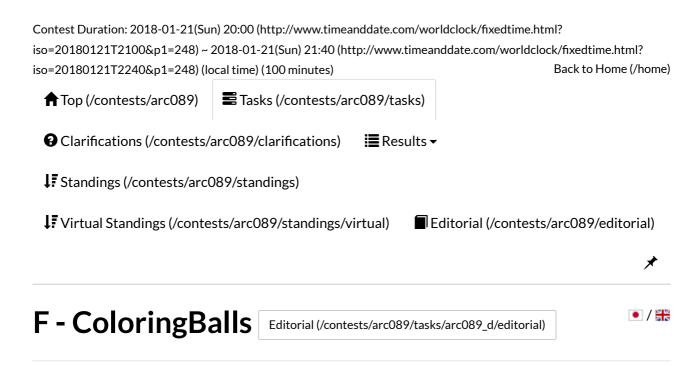
2020/9/11 F - ColoringBalls



Time Limit: 4 sec / Memory Limit: 256 MB

Score: 1100 points

Problem Statement

There are N white balls arranged in a row, numbered $1,2,\ldots,N$ from left to right. AtCoDeer the deer is thinking of painting some of these balls red and blue, while leaving some of them white.

You are given a string s of length K. AtCoDeer performs the following operation for each i from 1 through K in order:

• The i-th operation: Choose a contiguous segment of balls (possibly empty), and paint these balls red if the i-th character in s is 'r'; paint them blue if the character is 'b'.

Here, if a ball which is already painted is again painted, the color of the ball will be overwritten. However, due to the properties of dyes, it is not possible to paint a white, unpainted ball directly in blue. That is, when the i-th character in s is 'b', the chosen segment must not contain a white ball.

After all the operations, how many different sequences of colors of the balls are possible? Since the count can be large, find it modulo $10^9 + 7$.

Constraints

- $1 \le N \le 70$
- 1 < K < 70

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- |s| = K
- s consists of 'r' and 'b'.
- N and K are integers.

Input

Input is given from Standard Input in the following format:

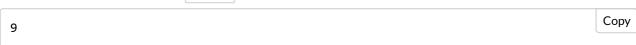
Output

Print the number of the different possible sequences of colors of the balls after all the operations, modulo $10^9 + 7$.

Sample Input 1 Copy

```
2 2 rb
```

Sample Output 1 Copy



There are nine possible sequences of colors of the balls, as follows:

```
'ww','wr','rw','rr','wb','bw','bb','rb','br'.
```

Here, 'r' represents red, 'b' represents blue and 'w' represents white.

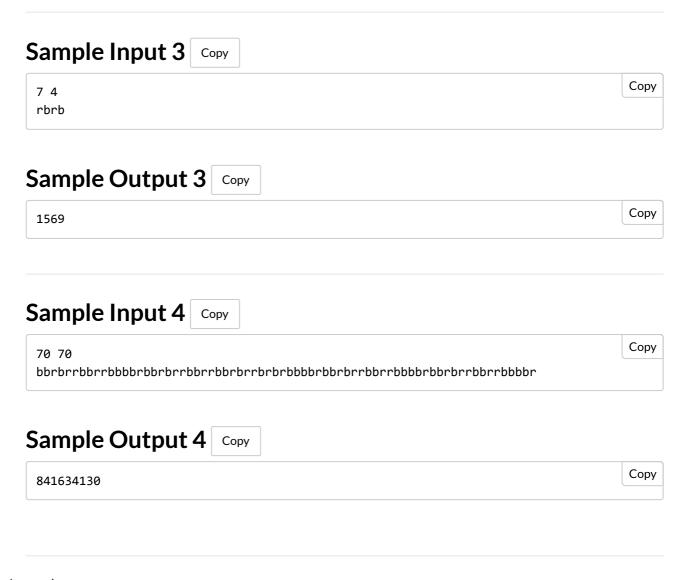
Sample Input 2 Copy



Sample Output 2 Copy

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Since we cannot directly paint white balls in blue, we can only choose an empty segment in the first operation.



/#telegram)

turl=https%3A%2F%2Fatcoder.jp%2Fcontests%2Farc089%2Ftasks%2Farc089_d%3Flang%3Den&title=F%20-

Rule (/contests/arc089/rules) Glossary (/contests/arc089/glossary)

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