PROBLEM 3

Making Bank

Input file: `bankin.txt`
Output file: `bankout.txt`

Time and memory limits: 1 second, 1 GB

You are a painter retiring in N days time and would like to plan the rest of your career. You currently have an artistic *skill* of $s = 1$, but can attend free art classes to increase it.

There are two types of days, represented by an uppercase character:

- `C`: There is an art class today. You can choose to attend the art class and increase your skill s by 1, or you can spend the day painting, earning s dollars.
- `M`: There is no art class today. You must spend the day painting, earning s dollars.

What is the most money (in dollars) you can retire with? You are guaranteed that this number will not exceed $2\,000\,000\,000$.

Input

- The first line of input contains the integer N.
- The second line of input contains a string of N characters, describing the days.

Output

Your program must output the most money (in dollars) you can retire with.

Sample input 1

```
5
MCCCC
```

Sample output 1

```
7
```

Sample input 2

```
10
CCMCMCCMMM
```

Sample output 2

```
27
```

Sample input 3

```
3
CCC
```

Sample output 3

```
4
```

Explanation

In the first sample case, you can retire with 7 dollars:

Day	Action	Skill	Total Money
`M`	Paint	1	1
`C`	Go to class	2	1
`C`	Go to class	3	1
`C`	Paint	3	4
`C`	Paint	3	7

In the second sample case, you can retire with 27 dollars:

Day	Action	Skill	Money
`C`	Go to class	2	0
`C`	Go to class	3	0
`M`	Paint	3	3
`C`	Go to class	4	3
`M`	Paint	4	7
`C`	Go to class	5	7
`C`	Paint	5	12
`M`	Paint	5	17
`M`	Paint	5	22
`M`	Paint	5	27

In the third sample case, you can retire with 4 dollars:

Day	Action	Skill	Money
`C`	Go to class	2	0
`C`	Paint	2	2
`C`	Paint	2	4

Subtasks and constraints

For all subtasks:

- $2 \leq N \leq 100\,000$.
- Each character of the string is either `C` or `M`.

Additionally:

- For Subtask 1 (25 marks), $N \leq 100$ and every character of the string is `C`.
- For Subtask 2 (35 marks), $N \leq 100$.
- For Subtask 3 (40 marks), no special constraints apply.