Canada Day Contest 2021 - Bob and Canada

Time limit: 3.0s **Memory limit:** 256M

Bob has a collection of strings. Each string consists of the characters `R` and `W`. He considers a string to be *Canadian* if it can be split into three nonempty, contiguous segments of Rs, Ws, and Rs, in that order.

Here are some examples of Canadian flags: `RWR`, `RRWWRR`, `RRRRWRR`.
Examples of strings that are not Canadian flags: `RWW`, `RRRRR`, `RWRW`.

For each string in Bob's collection, find the minimum number of characters that must be changed to make the string Canadian.

Input Specification

The first line will contain T, the number of strings.

Then T test cases follow. Each will contain a single integer n on its own line, the length of the string, and a string s.

Output Specification

For each string in Bob's collection, find the minimum number of characters that must be changed to make the string Canadian.

Constraints

$1 \leq T \leq 1000$

Subtask	Score	Constraints
1	5%	$3 \leq n \leq 10$, the sum of n across all strings will not exceed $10\,000$
2	20%	$3 \leq n \leq 2\,000$, the sum of n across all strings will not exceed $10\,000$
3	75%	$3 \leq n \leq 750\,000$, the sum of n across all strings will not exceed $750\,000$

Sample Input

```
8
3
RWR
3
WWW
3
WRR
4
RWRW
6
WWWRRR
6
WWRRWW
10
RRRRWWRWRR
10
WWRRWWWWRW
```

Sample Output

```
0
2
2
1
1
3
1
3
```

Explanation

Here is a possible result for each string:

```
RWR
RWR
RWR
RWWR
RWWRRR
RRRRWR
RRRRWWRRRR
RRRRWWWWRR
```