HOME TOP CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP

PROBLEMS   SUBMIT CODE   MY SUBMISSIONS   STATUS   STANDINGS   CUSTOM INVOCATION

B. Ophelia's Sadness

time limit per test: 1 second

memory limit per test: 256 megabytes

input: standard input

output: standard output

Ophelia got word that Hamlet has gone missing. Yesterday was supposed to be a date with Hamlet, and now Ophelia is saddened by the fact that not only was she abandoned by her date but also that she wouldn't be able to even see him in the near future. She is now sad. Ophelia goes to her personal garden and starts picking out roses in sadness. Ophelia is curious about the average number of petals she has counted at certain points, and as such, starts counting the number of petals for each rose she picks. Unfortunately, Ophelia is quite poor at arithmetic, and wants you to help keep track of the average number of roses at any time.

Ophelia will give you a stream of queries of two types. The first type of query will be of the form $R\ c_i$, telling you that the ith rose has c_i petals. The second type of query will be of the form A, where you must output the average number of petals.

Input

The first line will contain $n(1 \leq n \leq 10^5)$, the total number of queries that Ophelia has.

The next n lines will each contain a query $R\ c_i$ (where $0 \leq c_i \leq 10^3$), or A. It is guaranteed that a query A will not be given when no roses have been counted.

Output

For every query A, output the average number of rose petals counted up to that point on a separate line. Your answer for each query will be correct if it is within an absolute or relative error of 10^{-6}.

Example

input	Copy

```
5
R  3
R  2
A
R  5
A
```

output	Copy

```
2.500000000
3.333333333
```

Language: GNU G++17 7.3.0 ⌄

Choose file: [Choose File] No file chosen

[Submit]

→ Last submissions

Submission	Time	Verdict
133413237	Oct/29/2021 08:43	**Accepted**
133412840	Oct/29/2021 08:36	Wrong answer on test 2
133412011	Oct/29/2021 08:21	Wrong answer on test 2
132738371	Oct/23/2021 04:03	Runtime error on test 1

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Server time: Nov/14/2021 19:53:56^{UTC-8} (j2).
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