

About

binary operators $+$, $-$, $*$, $/$, where the $/$ denotes integer division, and brackets $(,)$. Given the values for the variables, please calculate the answer.

Note: Here we define integer division as the integer part of division (not rounding down). For example, 8 divided by 7 under division is 1.1428..., so 8 divided by 7 under integer division will be 1. -8 divided by 7 is $-1.1428...$, so -8 divided by 7 under integer division will be -1 (instead of -2).

Input

The first line is the arithmetic expression.

The second line is an integer T .

In the following T lines, each line has 5 integers: the values for variable A to E.

Constraints

- $1 \leq T \leq 10$
- Length of arithmetic expression $\leq 2 \cdot 10^5$
- $-10^9 \leq$ The intermediate values during calculation $\leq 10^9$
- Division by zero will not happen during calculation

Output

Output T lines, each line is the answer to a set of values for variable A to E.

Sample Input 1

```
A+B/(C-D)*E
2
4 8 7 6 3
5 7 3 4 1
```

Sample Output 1

```
28
-2
```

Sample Input 2

```
A/B
2
8 7 1 1 1
-8 7 1 1 1
```

Sample Output 2

```
1
-1
```

Hint

Be careful on the result of integer division when the result is negative.

Submissions

Rankings

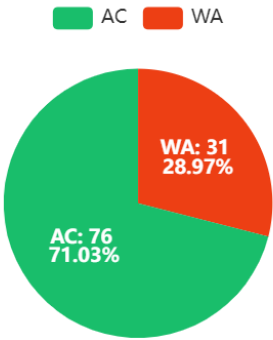
View Contest

Information

ID	1
Time Limit	2000MS
Memory Limit	512MB
IO Mode	Standard IO
Created By	ta_redleaf
Level	Hidden
Score	100
Tags	Show

Statistic

Details



Language: C

Theme: Solarized Light



1

You have solved the problem

Submit for Sample Test

Submit

Contest has ended

Sample Test Input

Sample Test Output

A+B/(C-D)*E
2
4 8 7 6 3
5 7 3 4 1