Allowance (2) X32391_en

Control 1, GRAU-PRO1, FIB (2014-10-06)

You have saved n euros. Additionally, every Monday of the next t weeks, you will be given a weekly allowance of $a_1, a_2, ..., a_t$ euros, respectively. Every week, you have a fixed amount of expenses that sums up to d euros.

Write a program that counts how many weeks you end up with a strictly positive balance.

Input

The input consists of three naturals $d \geq 0$, $n \geq 0$ and $t > 0$, which represent fixed weekly expenses, the initial savings, and the number of weeks with allowance, respectively.

Following, there are the quantities corresponding to the t weekly allowances $a_1, ..., a_t$. Every week allowance is a natural number $a_i \geq 0$.

Output

The output is a natural number indicating the number of weeks which end up with a strictly positive balance, after paying the weekly expenses.

Your program must meet the output format described in the examples an it should follow a right programming style. You may also decide to include comments, if appropriate.

Sample input 1

```
10 100 5
70
10
10
10
10
```

Sample output 1

```
5
```

Sample input 2

```
90 50 3
100
10
10
```

Sample output 2

```
1
```

Sample input 3

```
0 0 2
15
15
```

Sample output 3

```
2
```

Sample input 4

```
10 100 1
0
```

Sample output 4

```
1
```

Sample input 5

```
10 100 1
0
```

Sample output 5

```
1
```

Problem information

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