



05 : 08 : 30 : 36  
DAY HRS MIN SEC

# Codathon - Inter NIT Coding Contest 2018

LIVE

Jan 15, 2018, 06:00 PM IST - Jan 22, 2018, 06:00 PM IST

7  
LIVE EVENTS

INSTRUCTIONS

PROBLEMS

SUBMISSIONS

LEADERBOARD

ANALYTICS

JUDGE

← Problems / DAY 1 - Future Lights

## DAY 1 - Future Lights

Max. Marks: 100

**It's the year 2050.** Now, It hardly takes a few seconds to travel from one place to another. One of the future engineers is Akshay. Everyday he has to travel from his home to office. ( Yup, this situation has not changed at all )

The path from his home to office is a straight road with **N** traffic signals in between.

The time taken to travel from his home to the first traffic signal, first traffic signal to second traffic signal, second traffic signal to the third and so on are denoted by  $t_0, t_1, t_2, \dots$  and so on. (with  $t_n$  denoting the time taken to travel from the last signal to his office)

All the signals are in synchronisation with one another. They become **Green** at the same time and again become **Red** at the same time.

All the lights stay Green for one second and Red for one second alternately.

Akshay starts driving from his home at time 0.

All the signals are Red at time 0 , remain Red for one second and then turn Green for one second and so on alternately.

Calculate the total time he spends daily to travel from home to office.

### INPUT

The first line of input contains a single positive integer **T** denoting the number of test cases . Each test case contains two lines.

First line contains a single integer **N** denoting the number of traffic signals.

Next line contains **N+1** space separated positive integers  $t_0, t_1, t_2, t_3, \dots, t_n$

First integer denotes the time taken to travel between Akshay's home and the first signal, second integer denotes the time taken to travel from the first signal and to second signal and so on.

?

**OUTPUT**

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For each test case, calculate the total time taken by Akshay to travel from his home to office and print the answer in a new line.

**CONSTRAINTS**

$$1 \leq T \leq 100$$

$$0 \leq N \leq 1000$$

$$1 \leq t_i \leq 1000$$

$$(0 \leq i \leq N)$$

**SAMPLE INPUT**

```
2
1
2 3
4
5 6 7 8 9
```

**SAMPLE OUTPUT**

```
6
36
```

**Explanation**

In the first case there is only one traffic signal.

He starts at time zero and reaches traffic signal at time 2 seconds.

He has to wait a second as traffic signal goes green at time 3 seconds.

Now moving ahead he takes 3 seconds more to reach from traffic signal to office. Thus total time is 6 seconds.

Similarly for second test case he only waits for 1 second (at the third signal) , so total time taken will be 36 seconds.

**Time Limit:** 1.0 sec(s) for each input file.

**Memory Limit:** 256 MB

**Source Limit:** 1024 KB

**Marking Scheme:** Marks are awarded if any testcase passes.

**Allowed Languages:** C, C++, C++14, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, R(RScript), Racket, Ruby, Rust, Scala, Swift, Visual Basic



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## CODE EDITOR

Enter your code or [Upload your code as file.](#)

Save

C++ (g++ 5.4.0)



```
1  /*
2  // Sample code to perform I/O:
3
4  cin >> name;           // Reading input from STDIN
5  cout << "Hi, " << name << ".\n";       // Writing output to STDOUT
6
7  // Warning: Printing unwanted or ill-formatted data to output will cause the test
8  */
9
10 // Write your code here
11
```

1:1

☒ Provide custom input

Press Ctrl-space for autocomplete suggestions.

COMPILE &amp; TEST

SUBMIT

**Tip:** You can submit any number of times you want. Your best submission is considered for computing total score.

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