

# Problem I. Long Jumps

**Time limit** 2000 ms

**Mem limit** 262144 kB

Polycarp found under the Christmas tree an array  $a$  of  $n$  elements and instructions for playing with it:

- At first, choose index  $i$  ( $1 \leq i \leq n$ ) — starting position in the array. Put the chip at the index  $i$  (on the value  $a_i$ ).
- While  $i \leq n$ , add  $a_i$  to your score and move the chip  $a_i$  positions to the right (i.e. replace  $i$  with  $i + a_i$ ).
- If  $i > n$ , then Polycarp ends the game.

For example, if  $n = 5$  and  $a = [7, 3, 1, 2, 3]$ , then the following game options are possible:

- Polycarp chooses  $i = 1$ . Game process:  $i = 1 \xrightarrow{+7} 8$ . The score of the game is:  $a_1 = 7$ .
- Polycarp chooses  $i = 2$ . Game process:  $i = 2 \xrightarrow{+3} 5 \xrightarrow{+3} 8$ . The score of the game is:  $a_2 + a_5 = 6$ .
- Polycarp chooses  $i = 3$ . Game process:  $i = 3 \xrightarrow{+1} 4 \xrightarrow{+2} 6$ . The score of the game is:  $a_3 + a_4 = 3$ .
- Polycarp chooses  $i = 4$ . Game process:  $i = 4 \xrightarrow{+2} 6$ . The score of the game is:  $a_4 = 2$ .
- Polycarp chooses  $i = 5$ . Game process:  $i = 5 \xrightarrow{+3} 8$ . The score of the game is:  $a_5 = 3$ .

Help Polycarp to find out the maximum score he can get if he chooses the starting index in an optimal way.

## Input

The first line contains one integer  $t$  ( $1 \leq t \leq 10^4$ ) — the number of test cases. Then  $t$  test cases follow.

The first line of each test case contains one integer  $n$  ( $1 \leq n \leq 2 \cdot 10^5$ ) — the length of the array  $a$ .

The next line contains  $n$  integers  $a_1, a_2, \dots, a_n$  ( $1 \leq a_i \leq 10^9$ ) — elements of the array  $a$ .

It is guaranteed that the sum of  $n$  over all test cases does not exceed  $2 \cdot 10^5$ .

## Output

For each test case, output on a separate line one number — the maximum score that Polycarp can get by playing the game on the corresponding array according to the instruction from the statement. Note that Polycarp chooses any starting position from 1 to  $n$  in such a way as to maximize his result.

**Sample 1**

Input	Output
4 5 7 3 1 2 3 3 2 1 4 6 2 1000 2 3 995 1 5 1 1 1 1 1	7 6 1000 5

**Note**

The first test case is explained in the statement.

In the second test case, the maximum score can be achieved by choosing  $i = 1$ .

In the third test case, the maximum score can be achieved by choosing  $i = 2$ .

In the fourth test case, the maximum score can be achieved by choosing  $i = 1$ .