

Contest Duration: 2025-09-27(Sat) 22:00 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20250927T2100&p1=248>) - 2025-09-27(Sat) 23:40 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20250927T2240&p1=248>) (local time) (100 minutes)

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## C - Rotate and Sum Query

Editorial (/contests/abc425/tasks/abc425\_c/editorial)



Time Limit: 2 sec / Memory Limit: 1024 MiB

Score : 350 points

### Problem Statement

You are given an integer sequence  $A = (A_1, A_2, \dots, A_N)$  of length  $N$ .

Process  $Q$  queries in order. There are two types of queries, given in the following formats:

- 1  $c$ : Perform the operation of moving the first element of  $A$  to the end  $c$  times.
- 2 1  $r$ : Output the value of  $\sum_{i=1}^r A_i$ .

### Constraints

- $1 \leq N \leq 2 \times 10^5$
- $1 \leq Q \leq 2 \times 10^5$
- $1 \leq A_i \leq 10^9$
- $1 \leq c \leq N$
- $1 \leq l \leq r \leq N$
- At least one query of the second type exists.
- All input values are integers.

# Input

The input is given from Standard Input in the following format:

```
 $N$   $Q$   
 $A_1$   $A_2$  ...  $A_N$   
query1  
query2  
⋮  
query $Q$ 
```

Each query query <sub>$i$</sub>  is given in one of the following two formats:

```
1  $c$ 
```

```
2  $l$   $r$ 
```

# Output

Following the instructions in the problem statement, output the answers to the second type queries, separated by newlines.

## Sample Input 1

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```
4 3  
3 1 4 5  
2 1 3  
1 1  
2 2 3
```

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## Sample Output 1

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```
8  
9
```

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Each query is processed as follows:

- First query:  $A_1 + A_2 + A_3 = 3 + 1 + 4 = 8$ , so output 8.
- Second query:  $A = (3, 1, 4, 5)$  changes to  $A = (1, 4, 5, 3)$ .
- Third query:  $A_2 + A_3 = 4 + 5 = 9$ , so output 9.

## Sample Input 2

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```
5 7
1 2 4 8 16
2 1 5
1 4
1 5
2 1 5
2 2 4
1 1
2 3 3
```

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## Sample Output 2

[Copy](#)

```
31
31
7
4
```

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[/#telegram](#))

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