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PROBLEMS SUBMIT STATUS STANDINGS CUSTOM TEST

## B. Kuriyama Mirai's Stones

time limit per test: 2 seconds memory limit per test: 256 megabytes input: standard input output: standard output

Kuriyama Mirai has killed many monsters and got many (namely n) stones. She numbers the stones from 1 to n. The cost of the i-th stone is  $v_i$ . Kuriyama Mirai wants to know something about these stones so she will ask you two kinds of questions:

- 1. She will tell you two numbers, l and r  $(1 \le l \le r \le n)$ , and you should tell her  $\sum_{i=l}^{r} v_i$ .
- 2. Let  $u_i$  be the cost of the i-th cheapest stone (the cost that will be on the i-th place if we arrange all the stone costs in non-decreasing order). This time she will tell you two numbers, l and r  $(1 \le l \le r \le n)$ , and you should tell her  $\sum_{i=l}^r u_i$ .

For every question you should give the correct answer, or Kuriyama Mirai will say "fuyukai desu" and then become unhappy.

## Input

The first line contains an integer n ( $1 \le n \le 10^5$ ). The second line contains n integers:  $v_1, v_2, ..., v_n$  ( $1 \le v_i \le 10^9$ ) — costs of the stones.

The third line contains an integer m  $(1 \le m \le 10^5)$  — the number of Kuriyama Mirai's questions. Then follow m lines, each line contains three integers type, l and r  $(1 \le l \le r \le n; 1 \le type \le 2)$ , describing a question. If type equal to 1, then you should output the answer for the first question, else you should output the answer for the second one.

### Output

Print m lines. Each line must contain an integer — the answer to Kuriyama Mirai's question. Print the answers to the questions in the order of input.

## **Examples**



input	Сору
4	
5 5 2 3	
10	
1 2 4	
2 1 4	
1 1 1	
2 1 4	

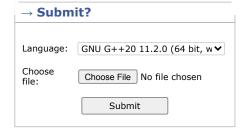
## Finished Practice

## → Virtual participation

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Start virtual contest

# → Clone Contest to Mashup You can clone this contest to a mashup. Clone Contest



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Codeforces Round #248	×	
• Tutorial (en)	×	

## Note

3 5

10/5/22, 10:21 AM

1 2 2

Please note that the answers to the questions may overflow 32-bit integer type.

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