



Утегенов Батырхан Елембетұлы [ADS-Lab-03]: Submit a solution

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## Submit a solution for H-Debugging

Time limit: 1 s

Real time limit: 5 s

Memory limit: 256M

### Problem H: Debugging

Jonathan almost finished his project by Object-Oriented Programing course. His code consists of  $N$  consecutive blocks, each of them consists of certain amount of lines. Unfortunately, Jonathan made a lot of mistakes. Compiler showed that Jonathan made  $M$  mistakes, each of them described by the number of line where this mistake was made. To debug his project faster, Jonathan wants to define number of block in which I made a mistake. Please, help Jonathan debug his project before deadline will expire.

### Input format

First line consists of integers  $N$  and  $M$  - number of blocks and mistakes ( $1 \leq N, M \leq 2 \cdot 10^5$ ).

The second line contains  $N$  integers  $a_i$  - number of lines in the  $i_{th}$  block ( $1 \leq a_i \leq 10^4$ ).

Each of the next  $M$  lines contains one integer  $b_i$  - number of line where the  $i_{th}$  mistake was made ( $1 \leq b_i \leq 2 \cdot 10^9$ ).

### Output format

Print  $M$  lines, the  $i_{th}$  line must contain the number of block in which the  $i_{th}$  mistake was made.

### Examples

Input

```
2 1
3 4
5
```

Output

```
2
```

Input

```
3 3
5 7 6
5
10
15
```

Output

```
1
2
3
```

### Notes

In the first sample lines [1, 3] belong to the first block and lines [4, 7] to the second. So, Jonathan will find mistake at the fifth line at the second block

In the second sample lines [1, 5], [6, 12], [13, 18] belong to the first, second and third blocks respectively. So, the fifth line is inside first block, the ten line is inside second block and the fifteenth line is inside third block.

**Hint:** Think about implementing binary search function to solve this problem.

**Hint:** Build a new array  $P$ , where  $P_i$  is the line at which  $i_{th}$  block ends. You can notice, that this array is sorted.

Submit a solution

Submit a solution

Language: g++ - GNU C++ 11.4.0

File Choose File No file chosen

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