

# GSS1 - Can you answer these queries I

You are given a sequence  $A[1], A[2], \dots, A[N]$  . (  $|A[i]| \leq 15007$  ,  $1 \leq N \leq 50000$  ). A query is defined as follows:

$Query(x,y) = \text{Max} \{ a[i]+a[i+1]+\dots+a[j] ; x \leq i \leq j \leq y \}$ .

Given M queries, your program must output the results of these queries.

## Input

- The first line of the input file contains the integer N.
- In the second line, N numbers follow.
- The third line contains the integer M.
- M lines follow, where line i contains 2 numbers  $x_i$  and  $y_i$ .

## Output

Your program should output the results of the M queries, one query per line.

## Example

**Input:**

```
3
-1 2 3
1
1 2
```

**Output:**

```
2
```