

Froggie Can Only Jump Forward

locked

Problem

Submissions

Discussions

Time Limit: $C/C++ (1s)$, $Java (2s)$ Memory Limit: $512MB$

Froggie the frog can only jump forward.

Froggie lives in a lake with N lotus leaves numbered from 1 to N . Each leaf has a jumping power which allows Froggie to jump from it to another leaf of higher number. Lets say leaf i has power A_i , now if Froggie is currently on leaf i Froggie will be able to jump to any other leaf which has its number within $i + 1$ to $i + A_i$.

Froggie now thinks what is the minimum number of jumps required to jump from some leaf to another.

Given Q queries with numbers s and d find the minimum number of jumps required to reach leaf d if Froggie starts from leaf s .

Input Format

First line contains the number of test cases T .

For every test case:

The first line contains two integers N and Q .

The second line contains N integers, the i th integer is the value of A_i .

The next Q lines contain two integers s and d corresponding to the above queries.

Constraints

$$1 \leq T \leq 10^5$$

$$1 \leq N, Q \leq 10^5$$

Sum of N over all test cases does not exceed 2×10^5

Sum of Q over all test cases does not exceed 2×10^5

$$1 \leq A_i \leq N$$

$$1 \leq s \leq d \leq N$$

Output Format

For every test case print Q lines where i th line has the answer to the i th query.

Sample Input 0

```
1
10 11
1 2 1 3 1 1 3 3 3 1
6 8
4 8
```

```
7 8
2 9
7 9
8 10
3 5
6 7
4 7
1 3
6 6
```

Sample Output 0

```
2
2
1
3
1
1
2
1
1
2
0
```



Submissions: [42](#)
Max Score: 100

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C



```
1 #include <stdio.h>
2 #include <string.h>
3 #include <math.h>
4 #include <stdlib.h>
5
6 int main() {
7
8     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
9     return 0;
10 }
```

Line: 1 Col: 1

[Upload Code as File](#) ☐ Test against custom input

Run Code

Submit Code