Array and Queries

Lab Exam 1 - Replay

Computer Programming
Date: 3 October, 2019

Problem Code: **AAQ [20 Marks]**

Problem Statement: Given an array A containing N positive integers A_i you need to answer Q queries of the form
X
For each query, you need to report the size of the smallest subarray starting from index 0 such that the sum of the subarray is $\geq X$

Input
First line of input is N and Q, denoting number of elements in the array and the number of Queries. Next N lines have a single positive integer. The next Q lines contain 1 space separated integer X denoting the minimum subarray sum respectively.
Output
You should have Q lines of output. For each line, print the size of the smallest subarray starting from index 0 such that its sum is $\geq X$. If no such valid subarray exists, print -1

Constraints
$1 \leq N, Q \leq 10^5$
$1 \leq X, A_i \leq 10^9$

Time Limit: 1 sec
Memory Limit: 256 MB

Sample Test Case

Input	Output
5 3 1 3 4 5 2 3 6 16	2 3 -1