Cherry Blossom Counting (prob1)

The Problem

A little known fact about Macon, GA is that it has more cherry blossoms than any other city in the world! A tour company in town offers various tours and would like to add to its pamphlet how many cherry blossoms visitors will see on each tour. Help the tour company with the calculation!

Input

The first line of the input will contain a single positive integer, N ($N \leq 100$), representing the number of locations in Macon that different tours potentially visit. The second line of the input will contain N space separated integers, $B_1, B_2, \ldots, B_N$, ($0 \leq B_i \leq 1000000$, for all $1 \leq i \leq N$) representing the number of cherry blossoms at tour locations 1 through N, in numerical order. The third line of the input will contain a single positive integer, T ($T \leq 100$), representing the number of different tours offered by the tour company. The following T lines contain descriptions of each of the tours. Each tour will be given by two space separated integers, S_i and F_i, representing the starting tour location and the ending tour location, respectively. The tour will visit each numbered location in between S_i ($1 \leq S_i \leq N$)and F_i ($S_i \leq F_i \leq N$), inclusive.

Output

For each tour, output a single line with the total number of cherry blossoms visitors will see on that tour.

Sample Input	Sample Output
8 100 0 1234 1000000 88 912 49110 6 3 1 8 2 2 5 7	1051450 0 50110