

L R Even Odd

Jojo is given N integers, $A_1, A_2, ..., A_N$ by his teacher. His teacher also give him 2M integers, $L_1, L_2, ..., L_M$ and $R_1, R_2, ..., R_M$. For each i from 1 to M, his teacher asked him to calculate the sum of even index numbers minus the sum of odd index numbers from index L_i to R_i . For example if $L_i = 3$ and $R_i = 7$, then he has to calculate the value of $(A_4 + A_6) - (A_3 + A_5 + A_7)$. Help him by making the program to calculate it quickly!

Format Input

The first line consist of two integers, N and M. The second line consist of N integers, $A_1, A_2, ..., A_N$. The next M lines consist of two integers, L_i and R_i .

Format Output

Output M lines, the answer for L_i and R_i , where i is an integer from 1 to M.

Constraints

- $1 \le N, M \le 10^5$
- $\bullet \ 1 \le A_i \le 10^2$
- $1 \le L_i \le R_i \le N$

Sample Input 1 (standard input)

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

Sample Output 1 (standard output)

1		
-7		
-1		
4		

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L R Even Odd

Jojo diberikan N bilangan bulat, $A_1, A_2, ..., A_N$ oleh gurunya. Gurunya juga memberinya 2M bilangan bulat, $L_1, L_2, ..., L_M$ dan $R_1, R_2, ..., R_M$. Untuk setiap i dari 1 sampai M, gurunya menyuruhnya untuk menghitung jumlah bilangan pada index genap dikurangi jumlah bilangan pada index ganjil dari index L_i sampai R_i . Sebagi contoh, jika $L_i = 3$ dan $R_i = 7$, maka ia harus menghitung nilai dari $(A_4 + A_6) - (A_3 + A_5 + A_7)$. Bantu dia dengan cara membuat program untuk menghitungnya dengan cepat!

Format Input

Baris pertama terdiri dari dua bilangan bulat, N dan M. Baris kedua terdiri dari N bilangan bulat, $A_1, A_2, ..., A_N$. M baris selanjutnya terdiri dari 2 bilangan bulat, L_i and R_i .

Format Output

Outputkan M baris, jawaban untuk L_i dan R_i , di mana i adalah bilangan bulat dari 1 sampai M.

Constraints

- $\bullet \ 1 \le N, M \le 10^5$
- $1 \le A_i \le 10^2$
- $1 \le L_i \le R_i \le N$

Sample Input 1 (standard input)

7 4 4 1 7 9 3 5 7 2 2 3 3 1 4

3 6

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Sample Output 1 (standard output)

1		
-7		
-1		
4		
_		



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