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**Hot~招聘——壹晨仟阳(杭州)，巴卡斯(杭州)，英雄互娱(杭)**  
**(包括2016级新生)除了校赛，还有什么途径可以申请加入ACM**

## In Touch

**Time Limit: 8000/4000 MS (Java/Others) Memory Limit: 131072/131072 K (Java/Others)**  
**Total Submission(s): 1825 Accepted Submission(s): 493**

### Problem Description

There are  $n$  soda living in a straight line. soda are numbered by  $1, 2, \dots, n$  from left to right. The distance between two adjacent soda is 1 meter. Every soda has a teleporter. The teleporter of  $i$ -th soda can teleport to the soda whose distance between  $i$ -th soda is no less than  $l_i$  and no larger than  $r_i$ . The cost to use  $i$ -th soda's teleporter is  $c_i$ .

The 1-st soda is their leader and he wants to know the minimum cost needed to reach  $i$ -th soda ( $1 \leq i \leq n$ ).

### Input

There are multiple test cases. The first line of input contains an integer  $T$ , indicating the number of test cases. For each test case:

The first line contains an integer  $n$  ( $1 \leq n \leq 2 \times 10^5$ ), the number of soda.

The second line contains  $n$  integers  $l_1, l_2, \dots, l_n$ . The third line contains  $n$  integers  $r_1, r_2, \dots, r_n$ . The fourth line contains  $n$  integers  $c_1, c_2, \dots, c_n$  ( $0 \leq l_i \leq r_i \leq n, 1 \leq c_i \leq 10^9$ ).

### Output

For each case, output  $n$  integers where  $i$ -th integer denotes the minimum cost needed to reach  $i$ -th soda. If 1-st soda cannot reach  $i$ -th soda, you should just output -1.

### Sample Input

```
1
5
2 0 0 0 1
3 1 1 0 5
1 1 1 1 1
```

### Sample Output

```
0 2 1 1 -1
```

#### Hint

If you need a larger stack size, please use #pragma comment(linker, "/STACK:102400000,102400000") and submit your solution using C++.

### Author

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### Source

2015 Multi-University Training Contest 6

### Recommend

wange2014 | We have carefully selected several similar problems for you: [5659](#) [5657](#) [5655](#) [5654](#) [5653](#)