

Contest Duration: 2025-10-04(Sat) 22:00 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20251004T2100&p1=248>) - 2025-10-04(Sat) 23:40 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20251004T2240&p1=248>) (local time) (100 minutes)

[Back to Home \(/home\)](#)

[Top \(/contests/abc426\)](#)

[Tasks \(/contests/abc426/tasks\)](#)

[Clarifications \(/contests/abc426/clarifications\)](#) [Results ▾](#)

[Standings \(/contests/abc426/standings\)](#)

[Virtual Standings \(/contests/abc426/standings/virtual\)](#) [Editorial \(/contests/abc426/editorial\)](#)

[Discuss \(<https://codeforces.com/blog/entry/146984>\)](#)



## G - Range Knapsack Query

[Editorial \(/contests/abc426/tasks/abc426\\_g/editorial\)](#)

/

Time Limit: 2 sec / Memory Limit: 1024 MiB

Score : 575 points

### Problem Statement

There are  $N$  items numbered from 1 to  $N$ . The **weight** of item  $i$  is  $W_i$  and the **value** is  $V_i$ .

You are given  $Q$  queries, so process them in order. The  $j$ -th query is as follows:

- Integers  $L_j, R_j, C_j$  ( $1 \leq L_j \leq R_j \leq N$ ) are given. When choosing some (possibly zero) items from items  $L_j, L_j + 1, \dots, R_j$  such that the total weight does not exceed  $C_j$ , find the maximum possible total value of the chosen items.

### Constraints

- $1 \leq N \leq 2 \times 10^4$
- $1 \leq Q \leq 2 \times 10^5$
- $1 \leq W_i \leq 500$
- $1 \leq V_i \leq 10^9$
- $1 \leq L_j \leq R_j \leq N$
- $1 \leq C_j \leq 500$
- All input values are integers.

## Input

The input is given from Standard Input in the following format:

```
N  
W1 V1  
W2 V2  
:  
WN VN  
Q  
L1 R1 C1  
L2 R2 C2  
:  
LQ RQ CQ
```

## Output

Output  $Q$  lines. The  $i$ -th line ( $1 \leq i \leq Q$ ) should contain the answer for the  $i$ -th query.

### Sample Input 1

Copy

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

Copy

### Sample Output 1

Copy

```
11  
13  
0
```

Copy

For the first query, among items 1, 2, 3, 4, if you choose items 2, 4, the total weight is  $5 + 2 = 7$ , which does not exceed  $C_1 = 7$ , and the total value is  $8 + 3 = 11$ . This is the maximum.

For the second query, even if you choose all items 2, 3, 4, the total weight is  $5 + 2 + 1 + 2 = 8$ , which does not exceed  $C_2 = 10$ , and you can achieve a total value of  $8 + 2 + 3 + 1 = 12$ .

For the third query, both items 1, 2 have weights exceeding  $C_3 = 2$ , so you cannot choose any item, and the maximum total value is 0.

## Sample Input 2

Copy

```
8
167 430302156
22 623690081
197 476190629
176 24979445
22 877914575
247 211047202
232 822804784
25 628894325
8
6 8 176
3 5 80
1 7 310
4 8 368
4 5 218
3 4 431
4 6 228
1 1 239
```

Copy

## Sample Output 2

Copy

```
628894325
877914575
2324409440
2329613684
902894020
501170074
902894020
430302156
```

Copy

'#telegram)

url=https%3A%2F%2Fatcoder.jp%2Fcontests%2Fabc426%2Ftasks%2Fabc426\_g%3Flang%3Den&title=G%20-  
)

[Rule \(/contests/abc426/rules\)](#) [Glossary \(/contests/abc426/glossary\)](#)

[Terms of service \(/tos\)](#) [Privacy Policy \(/privacy\)](#) [Information Protection Policy \(/personal\)](#) [Company \(/company\)](#)  
[FAQ \(/faq\)](#) [Contact \(/contact\)](#)

Copyright Since 2012 ©AtCoder Inc. (<http://atcoder.co.jp>) All rights reserved. 2026-01-02 (Fri)  
05:31:21 +11:00

2026-01-02 (Fri)  
05:31:21 +11:00