

Portals II

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

points: 100 · problem code: portalsii · author: jbroeksteeg

You are standing at the first index of an array a of length n . At index i , you can either take a step forward to $i + 1$, or if there is a portal (m portals) x, y, z such that $i == x$, you can teleport to any index in $[y, z]$. The *score* of a path is defined as the maximum sum of values of the indices you visit. What is the maximum score with which you can get to index $n - 1$, starting from the start of the array?

Sample Input

```
5 1
1 2 -100 4 5
1 2 3
```

Sample Output

```
12
```

Constraints

$$1 \leq n \leq 1e5$$

$$1 \leq m \leq 1e5$$

$$-1e3 \leq a[i] \leq 1e3$$

$$0 \leq x < y \leq z < n$$