

Portals

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

points: 100 · problem code: portals · 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 $x \leq i \leq y$, you can teleport to index z . The *score* of a path is defined as the sum of values of the indices you visit. What is the maximum score with which you can get from index 0 to index $n - 1$?

Input Format

The first line is two integers n m , the number of numbers and portals. The next line is n integers, the array. The next m lines are each three integers x y z , the portals.

Sample Input

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

Sample Output

```
12
```

Constraints

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

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

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

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