B. Applying MAX to Segment

time limit per test: 1 second
memory limit per test: 1024 megabytes
input: standard input
output: standard output

There is an array of n elements, initially filled with zeros. You need to write a data structure that processes two types of queries:

- for all i from l to $r - 1$ do the operation $a_i = \max(a_i, v)$,
- find the current value of element i.

Input

The first line contains two numbers n and m ($1 \le n, m \le 100000$), the size of the array and the number of operations. The following lines contain the description of the operations. The description of each operation is as follows:

- 1 l r v: for all i from l to $r - 1$ do the operation $a_i = \max(a_i, v)$ ($0 \le l < r \le n, 0 \le v \le 10^9$).
- 2 i: find the value of the element with index i ($0 \le i < n$).

Output

For each operation of the second type, print the corresponding value.

Example

input Copy

```
5 5
1 0 3 3
2 1
1 2 4 4
2 3
2 4
```

output Copy

```
3
4
0
```