

Problem E: Fireworks

On New Year's Eve, the city of Toronto hosts a fireworks show. The show lasts **N** seconds, over the course of which **M** fireworks are used. Each firework goes off at a certain time **A**, hangs in the air for **L** seconds, and has a brightness of **B**. That means that between time **A** and **A+L-1** (inclusive), the brightness of the sky increases by **B**.

Given **A**, **L**, and **B** for each firework, figure out at which point in time is the sky the brightest.

Input:

The first line of the input provides the number of test cases, **T** ($1 \leq T \leq 100$). **T** test cases follow. Each test case begins with two integers **N** ($1 \leq N \leq 10^7$) and **M** ($1 \leq M \leq 10^4$). **M** lines follow, each containing three integers **A**, **L**, and **B**. ($1 \leq A, L \leq 10^7$, $1 \leq B \leq 1000$)

Output:

For each test case, your program should output one integer: the time at which the sky is the brightest. If there are multiple points in time at which the sky is brightest, output the time of the last one.

Sample Input:

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

Sample Output:

```
1
7
```

Explanation of Sample Input

In the second test case, the brightness of the sky, starting at $t = 1$ second, is $\{3, 3, 3, 7, 4, 4, 9, 5, 5, 5\}$, so the sky is brightest in the 7th second.