

G	Gamer's Karma Farming Strat	
	Time Limit (seconds)	1
	Memory Limit (MB)	256

After spending a long time collecting data and training his AI, Daeng confidently predicts that his mom will assign him N household tasks to complete during the day.

Task i is scheduled to take place during a specific time interval, starting at second l_i and ending at second r_i (inclusive). The task also has a karma value k_i . It is guaranteed that no two task intervals overlap with each other.

At the start of the day, Daeng's karma score is 0. When the clock reaches the start time l_i of a task, Daeng must make a choice:

- **Do the task:** Daeng gains k_i karma points. However, from the second l_i to r_i , he is fully occupied and cannot do anything else.
- **Skip the task:** Daeng may choose to ignore the task, but this is only allowed if his current karma score is at least k_i . In that case, his karma score decreases by k_i .

In addition to household tasks, Daeng wants to enjoy his favorite game as many times as possible throughout the day. Each game session lasts exactly M seconds. While Daeng is playing, he cannot work on tasks and must be continuous once started. Also, he can only have one gaming session at a time.

Time during the day is measured from second 0 up to second 86,399, making exactly one full day. Since each task interval includes both its starting and ending seconds, if a task ends at time r , Daeng is free to begin another activity at time $r + 1$. For example, if a game begins at second 0, it will finish at second $M - 1$.

Find the maximum number of game sessions Daeng can have on the day.

INPUT

The first line contains two integers N and M ($1 \leq N \leq 10,000, 1 \leq M \leq 86,400$) — the number of tasks and the duration of one game session in seconds.

Each of the next N lines contain three integers l_i, r_i, k_i ($0 \leq l_i \leq r_i < 86,400, 1 \leq k_i \leq 20,000$) — the start time, end time, and karma value of the i -th task.

It is guaranteed that **no task intervals overlap**. That is, for any integer i and j between 1 to N , if $i \neq j$, then $\min(r_i, r_j) < \max(l_i, l_j)$.

Also, $\sum_{i=1}^N k_i \leq 20,000$.

OUTPUT

Print a single integer — the maximum number of game sessions Daeng can play during the day without violating the rules.

EXAMPLE

INPUT	OUTPUT
3 1 0 1 1 2 4 1 6 10 1	86395
10 7 1 2 2 3 7 1 10 11 3 12 13 3 15 16 3	12341

18 21 5	
23 23 1	
24 25 5	
26 30 5	
31 33 2	

NOTES

In the first example, Daeng must do task 1 since he initially has no karma points. Then he can choose whether or not to do task 2. The optimal choice is to do task 2 and skip task 3.