

Problem 7: Minions Run

James is a professional minion runner also Mr.Gru henchman. He really loves banana. The courtyard of Mr.Gru's house is a banana forest which Mr.Gru grows it for his minions. In the forest, banana trees are grown in a row, each with a number of N trees. So, James who loves banana he often runs into the forest and grabs some bananas BUT each banana tree has only one hand of bananas. Each has a height of M and has K bananas. Of course, a hand of bananas is on its own tree!! So, James has to jump to grab it. Unfortunately, James is not a jumper. If a hand of bananas is so high from the ground James has to jump further. If banana is at a height of M , James must jump from the M trees before the target tree and James will touch the ground in the next M trees (after the target tree). Each time when James jumps, he can grab only one hand of bananas. Of course, he cannot start jumping in the air so he must be on the ground before the next jump. Furthermore, the exit of the courtyard is an arc door. Therefore, James must be on the ground at the last banana tree. BUT James is a foolish runner. When James starts running, he won't stop or take a turn until he reaches the goal. How can he grab bananas as many as possible in a run?

INPUT

T is a number of case(s) where $T \leq 100$. For each case will contain N which is a number of banana trees after that N lines will contain M and K where $N, M, K \leq 1000$

OUTPUT

Each case must be initiated with "Case #" followed by a case number and the next line is a number of bananas grabbed by James maximally.

SAMPLE

Input

```
2
12
1 1
1 2
2 5
1 4
1 3
1 0
2 6
1 1
1 2
3 7
1 2
1 1
12
```

1 1

1 2

2 5

1 4

1 3

1 0

3 6

1 1

1 2

5 7

1 2

1 1

Output

Case #1

10

Case #2

14