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Problem Code: **DWNLD**

Chef has recently got a broadband internet connection. His history of internet data usage is provided as below.

During the first T_1 minutes, the internet data used was D_1 MBs per minute, and during the next T_2 minutes, it was D_2 MBs per minute, and so on till during last T_N minutes it was D_N MBs per minute.

The internet provider charges the Chef 1 dollar for every 1 MB data used, except for the first K minutes, when the internet data is free as part of the plan provided to Chef.

Please find out the total amount that Chef has to pay the internet provider (in dollars).

Input

First line of the input contains a single integer TC the number of test cases. Description of TC test cases follow.

First line of each test case contains two space separated integers N and K .

Next N lines of each test case contains information about the internet data usage. Specifically, in the i -th line, there will be two space separated integers: T_i and D_i .

Output

For each test case output a single integer in separate line, the amount that Chef has to pay in dollars.

Constraints

- $1 \leq TC \leq 1,000$
 - $1 \leq N \leq 10$
 - $0 \leq K \leq T_1 + T_2 + \dots + T_N$
 - $1 \leq T_i, D_i \leq 10$
-

Example

Input:

```
3
2 2
2 1
2 3
2 2
```

1 2

2 3

3 0

1 2

2 4

10 10

Output :

6

3

110

Explanation

Example case 1. For the first two minutes, internet data of usage of Chef is free. He has to pay for last 2 minutes only, for which he will be charged at 3 dollars per minute, i.e. total 6 dollars.

Example case 2. For the first two minutes, internet data of usage of Chef is free. He has to pay for last 1 minute only, for which he is being charged at 3 dollars per minute. So, in total he has to pay 3 dollars.

Example case 3. This time, Chef is not provided any free data usage. He has to pay for entire data usage, which comes out to be $1 * 2 + 2 * 4 + 10 * 10 = 110$ dollars.