**Polo the Penguin and the Test**

Polo, the Penguin, has a lot of tests tomorrow at the university.

He knows that there are **N** different questions that will be on the tests. For each question **i** (**i = 1..N**), he knows **C[i]** - the number of tests that will contain this question, **P[i]** - the number of points that he will get for correctly answering this question on each of tests and **T[i]** - the amount of time (in minutes) that he needs to spend to learn this question.

Unfortunately, the amount of free time that Polo has is limited to **W** minutes. Help him to find the maximal possible total number of points he can get for all tests if he studies for no more than **W** minutes.

**Input**

The first line of the input contains an integer **T** denoting the number of test cases. The description of **T** test cases follows. The first line of each test case contains the pair of integers **N** and **W**, separated by a space. The following **N** lines contain three space-separated integers **C[i]**, **P[i]** and **T[i]** (**i = 1..N**).

**Output**

For each test case, output a single line containing the answer to the corresponding test case.

**Constraints**

* **1** ≤ **T** ≤ **100**
* **1** ≤ **N** ≤ **100**
* **1** ≤ **C[i], P[i], T[i]** ≤ **100**
* **1** ≤ **W** ≤ **100**

**Example**

**Input:**

1

3 7

1 2 3

2 3 5

3 3 3

**Output:**

11

**Explanation**

**Example case 1.** The best choice is to learn the first and the third questions and get **1\*2 + 3\*3 = 11** points.