Problem S
Knapsack

Time limit: 2 seconds
Memory limit: 256 megabytes

Problem Description

You have a knapsack which can hold W grams, and there are N kinds of items. There are L_i indivisible pieces of the i-th kind of items, and all pieces of the same kind have identical weight W_i and value V_i. Please write a program to compute the maximum total value of items whose total weight is no more than W.

Input Format

The first line of the input contains an integer t ($t \leq 60$) indicating the number of test cases. Each test case consists of two parts. The first part is one line containing two positive integers N and W separated by a blank where $N \leq 20$ and $W \leq 100000$. The second part consists of N lines describing the N kinds of items. On the i-th line, there are three integers W_i, V_i, L_i separated by blanks which indicate the weight, the value and the number of pieces of the i-th kind of items. You may assume $W_i \leq 100000, V_i \leq 1000, L_i \leq 10000$.

Output Format

For each test case, output the maximum total value of items whose total weight is no more than W.

Sample Input

```
2
2 6
4 100 2
3 60 3
4 9
2 30 100
4 100 2
3 60 3
5 150 5
```

Sample Output

```
120
250
```