



Fractional Knapsack

Given *weights* and *values* of **N** items, we need to put these items in a knapsack of capacity **W** to get the *maximum* total value in the knapsack.

Note: Unlike 0/1 knapsack, you are allowed to break the item.

Input:

First line consists of an integer T denoting the number of test cases. First line consists of two integers N and W, denoting number of items and weight respectively. Second line of every test case consists of 2*N spaced integers denoting Values and weight respectively. (Value1 Weight1 Value2 Weight2.... ValueN WeightN)

Output:

Print the maximum value possible to put items in a knapsack, upto 2 decimal place.

Constraints:

$1 \leq T \leq 100$
 $1 \leq N \leq 100$
 $1 \leq W \leq 100$

Example:

Input:

```
2
3 50
60 10 100 20 120 30
2 50
60 10 100 20
```

Output:

```
240.00
160.00
```

Explanation:

Test Case 1: We can have a total value of 240 in the following manner:

W = 50 (total weight the Knapsack can carry)

Val = 0

Include the first item. Hence we have: $W = 50 - 10 = 40$, Val = 60

Include the second item. $W = 40 - 20 = 20$, Val = 160

Include 2/3rd of the third item. $W = 20 - 20 = 0$, Val = $160 + (2/3) * 120 = 160 + 80 = 240$.



Test Case 2: We can have a total value of 160 in the following manner:

$W = 50$ (total weight the Knapsack can carry)

$Val = 0$

Include both the items. $W = 50 - 10 - 20 = 20$. $Val = 0 + 60 + 100 = 160$.