



Luck Balance

by [shuf_2318](#)

Problem

Submissions

Leaderboard

Discussions

Your submission will run against only preliminary test cases. Full test cases will run at the end of the day.

Lena is preparing for important coding competition that is preceded by N sequential preliminary contests. She believes in "saving luck", and wants to check her theory. Each contest is described by two integers, L_i and T_i :

- L_i is the amount of luck that can be gained by winning the contest. If Lena *wins* the contest, her luck balance will *decrease* by L_i ; if she *loses* it, her luck balance will *increase* by L_i .
- T_i denotes the contest's *importance rating*. It's equal to **1** if the contest is *important*, and it's equal to **0** if it's *unimportant*.

If Lena loses no more than K *important* contests, what is the maximum amount of luck she can have after competing in all the preliminary contests? This value *may* be negative.

Input Format

The first line contains two space-separated integers, N (the number of preliminary contests) and K (the maximum number of important contests Lena can lose), respectively.

Each line i of the N subsequent lines contain two space-separated integers, L_i (the contest's luck balance) and T_i (the contest's importance rating), respectively.

Constraints

- $1 \leq N \leq 100$
- $0 \leq K \leq N$
- $1 \leq L_i \leq 10^4$
- $0 \leq T_i \leq 1$

Output Format

Print a single integer denoting the maximum amount of luck Lena can have after all the contests.

Sample Input

```

6 3
5 1
2 1
1 1
8 1
10 0
5 0

```

Sample Output

```

29

```

Explanation

There are $N = 6$ contests. Of these contests, 4 are important (so she cannot lose any more than $K = 3$ of them). Lena maximizes her luck if she wins the 3^{rd} important contest (where $L_i = 1$) and loses all of the other five contests for a total luck balance of 29 .

Submissions: 3522

Max Score: 18

Difficulty: Easy

[More](#)Current Buffer (saved locally, editable)  Python 2 

```
1 # Enter your code here. Read input from STDIN. Print output to STDOUT
2 n,k=map(int,raw_input().split(' '))
3 l=[]
4 l_i=[]
5 t=[]
6
7 for i in range(n):
8     l_temp,t_temp=map(int,raw_input().split(' '))
9     l.append(l_temp)
10    t.append(t_temp)
11    if t_temp==1:
12        l_i.append(l_temp)
13
14 #print l, t,l_i
15
16 d=sum(t)-k
17
18 if d<=0:
19     print sum(l)
20 else:
21     l_i.sort()
22     win=l_i[0:d]
23     print sum(l)-2*sum(win)
24
25
```

Line: 1 Col: 1

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Run Code

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