



Your Luck Balance submission got 20.00 points.

Share

Tweet

[Try the Next Challenge](#) | [Try a Random Challenge](#)

# Luck Balance

by [shef\\_2318](#)

Problem

Submissions

Leaderboard

Discussions

Editorial

Lena is preparing for an 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 contains 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<sup>rd</sup> important contest (where  $L_i = 1$ ) and loses all of the other five contests for a total luck balance of  $5 + 2 + 8 + 10 + 5 - 1 = 29$ .

f t in

Submissions: 10589

Max Score: 20

Difficulty: Easy

Rate This Challenge:

☆☆☆☆☆

More

Current Buffer (saved locally, editable) 🔗 ↺

C++14



```

1 #include <cmath>
2 #include <cstdio>
3 #include <vector>
4 #include <iostream>
5 #include <algorithm>
6 using namespace std;
7
8
9 int main() {
10     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
11     int N, K;
12     cin >> N >> K;
13
14     vector<pair<int,int>> v;
15     int lc=0;
16
17     for(int i=0;i<N;i++)
18     {
19         int first,second;
20
21         cin >>first;
22         cin >>second;
23         if(second>0)
24             lc++;
25         v.push_back(make_pair(first,second));
26     }
27
28     sort(v.begin(),v.end(), [](pair<int,int>&a,pair<int,int>&b)
29     {
30         return a.first < b.first;
31     });
32
33
34
35     /* for(int i=0;i<N;i++)
36     {
37         cout << v[i].first <<" ";
38         cout <<v[i].second << endl;;
39     }
40
41     cout <<lc;
42     */
43     int ops=0;
44     int cost= 0;
45     for(int i =0; i<N;i++)
46     {
47         if(lc >K && v[i].second==1)
48         {
49             cost=cost-v[i].first;
50             lc--;
51         }
52         else
53             cost=cost+v[i].first;
54     }
55     cout << cost;
56     return 0;
57 }
```

58

Line: 42 Col: 6

 [Upload Code as File](#) ☐ [Test against custom input](#)

Run Code

Submit Code

Congrats, you solved this challenge!

- ✓ Test Case #0

✓ Test Case #3

✓ Test Case #6

✓ Test Case #9
- ✓ Test Case #1

✓ Test Case #4

✓ Test Case #7

✓ Test Case #10
- ✓ Test Case #2

✓ Test Case #5

✓ Test Case #8

✓ Test Case #11

You've earned 20.00 points!

Next Challenge

Join us on IRC at [#hackerrank](#) on freenode for hugs or bugs.

[Contest Calendar](#) | [Blog](#) | [Scoring](#) | [Environment](#) | [FAQ](#) | [About Us](#) | [Support](#) | [Careers](#) | [Terms Of Service](#) | [Privacy Policy](#) | [Request a Feature](#)