# Luck Balance

by shef_2318

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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 $3^{rd}$ important contest (where $L_i = 1$) and loses all of the other five contests for a total luck balance of $5 + 2 + 8 + 10 + 5 - 1 = 29$.

Submissions: 6198
Max Score: 20
Difficulty: Easy

Rate This Challenge:
★★★★★ Thanks!
More

Current Buffer (saved locally, editable) C#

```
using System;
using System.Collections.Generic;
using System.IO;
class Solution {


    static void Main(string[] args)
       {

            string[] input = Console.ReadLine().Split(' ');
            int n = int.Parse(input[0]);
            int k = int.Parse(input[1]);

            int i;
            string[] contest = new string[n];
            for (i = 0; i < n; i++)
            {
                contest[i] = Console.ReadLine();
            }

            //int n = 6, k = 3;
            //string[] contest = {  "5 1","2 1","1 1","8 1","10 0","5 0"};

            List<int> importantes = new List<int>();
            List<int> no_importantes = new List<int>();


            for ( i = 0; i < contest.Length; i++)
            {
                if (contest[i].Split(' ')[1] == "1")
                {
                    importantes.Add(int.Parse( contest[i].Split(' ')[0]));
                }
                else
                {
                    no_importantes.Add(int.Parse(contest[i].Split(' ')[0]));
                }
            }


            int ans = 0;

            if (importantes.Count > 0)
            {
                importantes.Sort();
                importantes.Reverse();

                for (i = 0; i<importantes.Count && i < k; i++)
                {
                    ans += importantes[i];
                }
                int ini = i;
                for (i = ini; i < importantes.Count; i++)
                {
                    ans -= importantes[i];

                }
            }

            for (i = 0; i < no_importantes.Count; i++)
            {
                ans += no_importantes[i];
            }

            Console.WriteLine(ans);

           // Console.ReadLine();
        }

}
```

Line: 19 Col: 14

Upload Code as File  Test against custom input  Run Code  Submit Code

## Congrats, you solved this challenge!

| | | |
|---|---|---|
| ✔ Test Case #0 | ✔ Test Case #1 | ✔ Test Case #2 |
| ✔ Test Case #3 | ✔ Test Case #4 | ✔ Test Case #5 |
| ✔ Test Case #6 | ✔ Test Case #7 | ✔ Test Case #8 |
| ✔ Test Case #9 | ✔ Test Case #10 | ✔ Test Case #11 |

Next Challenge