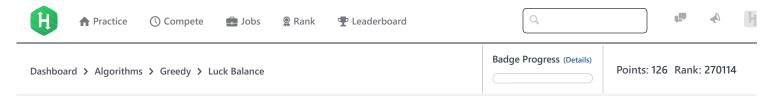
15/11/2017 HackerRank



Luck Balance



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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

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

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
- 1 1
- 8 1
- 10 0
- 5 0

Sample Output

29

Explanation

15/11/2017 HackerRank

There are N=6 contests. Of these contests, ${\bf 4}$ are important (so she cannot lose any more than K=3 of them). Lena maximizes her luck if she wins the ${\bf 3}^{rd}$ important contest (where $L_i=1$) and loses all of the other five contests for a total luck balance of ${\bf 5}+{\bf 2}+{\bf 8}+{\bf 10}+{\bf 5}-{\bf 1}={\bf 29}$.

f in Submissions:<u>13889</u> Max Score:20 Difficulty: Easy Rate This Challenge: ☆☆☆☆☆

```
Current Buffer (saved locally, editable) & 49
                                                                                            Java 7
 1 ▼ import java.io.*;
    import java.util.*;
    import java.text.*;
 3
    import java.math.*;
    import java.util.regex.*;
 7 ▼ public class Solution {
 8
         public static void main(String[] args) {
 9 ▼
             /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
10 ▼
11
   }
12
                                                                                                                     Line: 1 Col: 1
                       Test against custom input
                                                                                                         Run Code
                                                                                                                      Submit Code
1 Upload Code as File
```

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