



RATE THIS CHALLENGE



Lena is preparing for an important coding competition that is preceded by a number of sequential preliminary contests. Initially, her luck balance is 0. 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 associated with a 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.

Example

$k = 2$
 $L = [5, 1, 4]$
 $T = [1, 2, 0]$

Contest	$L[i]$	$T[i]$
1	5	1
2	1	1
3	4	0

If Lena loses all of the contests, her will be $5 + 1 + 4 = 10$. Since she is allowed to lose 2 important contests, and there are only 2 important contests, she can lose all three contests to maximize her luck at 10.

If $k = 1$, she has to win at least 1 of the 2 important contests. She would choose to win the lowest value important contest worth 1. Her final luck will be $5 + 4 - 1 = 8$.

Function Description

Complete the luckBalance function in the editor below.

luckBalance has the following parameter(s):

- int k: the number of important contests Lena can lose
- int contests[n][2]: a 2D array of integers where each $contests[i]$ contains two integers that represent the luck balance and importance of the i^{th} contest

Returns

- int: the maximum luck balance achievable

Input Format

The first line contains two space-separated integers n and k , the number of preliminary contests and the maximum number of important contests Lena can lose. Each of the next n lines contains two space-separated integers, $L[i]$ and $T[i]$, the contest's luck balance and its importance rating.

Constraints

- $1 \leq n \leq 100$
- $0 \leq k \leq N$
- $1 \leq L[i] \leq 10^4$
- $T[i] \in \{0, 1\}$

Sample Input

STDIN	Function
6 3	n = 6, k = 3
5 1	contests = [[5, 1], [2, 1], [1, 1], [8, 1], [10, 0], [5, 0]]
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 and she cannot lose 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 $5 + 2 + 8 + 10 + 5 - 1 = 29$.

Change Theme
Language
C#

```

1  using System.CodeDom.Compiler;
2  using System.Collections.Generic;
3  using System.Collections;
4  using System.ComponentModel;
5  using System.Diagnostics.CodeAnalysis;
6  using System.Globalization;
7  using System.IO;
8  using System.Linq;
9  using System.Reflection;
10 using System.Runtime.Serialization;
11 using System.Text.RegularExpressions;
12 using System.Text;
13 using System;
14
15 class Result
16 {
17
18     /*
19      * Complete the 'luckBalance' function below.
20      *
21      * The function is expected to return an INTEGER.
22      * The function accepts following parameters:
23      *   1. INTEGER k
24      *   2. 2D_INTEGER_ARRAY contests
25      */
26
27     public static int luckBalance(int k, List<List<int>> contests)

```

Line: 82 Col: 1

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