## Luck Balance

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

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

| 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 $i^{\text {th }}$ 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
-----
6
n = 6, k = 3
5
2 1
1 1
8 1
10 0
50
```


## Sample Output

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

