Get Lucky

ZPRAC-16-17-Lab11

Get Lucky

[40 Marks]

ANNOUNCEMENT:

10% marks will be allotted for using dynamic memory allocation (using malloc)

Up to 20% marks will be allotted for good programming practice. These include
- Comments for non trivial code
- Indentation: align your code properly

You are preparing for a big programming contest which is preceded by N small programming contests. You want to maximize your luck balance before the big contest.

You are given an array L=[l1,l2, ... ,lN], which denotes the luck associated with each of the small programming contests.
You are also given another array T=[t1,t2, ... ,tN] which denotes the importance of each small contest. Each element in T can take the value either 0 or 1. 0 indicates that the corresponding contest is not important and 1 indicates that the corresponding contest is important.

If you win a small programming contest i you lose Li amount of luck.
if you lose a small programming contest i you gain Li amount of luck.

Also you cannot lose more than K important contests.

Given the above mentioned scenario, find out the maximum amount of luck you can gain after all the small contests.

Input Format::
First line contains two space separated integers, N and K
Each line i of the N subsequent lines contains two space-separated integers li and Ti

respectively.

Output Format::
Print a single integer denoting the maximum amount of luck you can have after all the small contests

Example::

Input--

6 3
5 1
2 1
1 1
8 1
10 0
5 0

Output--

29

Explanation:

Here you can lose only 3 important contest. So you can maximize luck by only winning contest 3.

Total Luck= 5+2-1+8+10+5=29