

Problem L. a-b Problem

Time limit: 3 seconds
Memory limit: 64 Megabytes

Alice and Bob are playing a little game. There are n stones. Alice and Bob take turns picking stones, with Alice going first. Each person can only pick one stone at a time until all the stones are gone. Each stone has two attributes, A_i and B_i . When Alice picks a stone, she earns A_i points, and when Bob picks a stone, he earns B_i points. The total score for each person is the sum of the points they earn when picking a stone. Both players want to maximize the difference between their scores, aiming to have their own score minus the opponent's score as large as possible. The question is, what is the final result of Alice's score minus Bob's score?

Input

The first line contains a positive integer, T , representing the number of test cases, where $1 \leq T \leq 20$.

Next, for each test case, the following format is repeated:

The first line contains a positive integer, n , where $1 \leq n \leq 10^5$. The next n lines contain two integers, A_i and B_i , representing the two attributes of the i th stone. The values of A_i and B_i satisfy $0 \leq A_i, B_i \leq 10^9$.

Output

For each test case, output one line containing an integer representing the answer.

Example

standard input	standard output
2	1
3	-1
0 2	
1 2	
3 3	
3	
1 0	
2 3	
0 4	