Two City Scheduling

Try to solve the Two City Scheduling problem.

We'll cover the following

- Statement
- Examples
- Understand the problem
- Figure it out
- Try it yourself

Statement

A recruiter plans to hire n people and conducts their interviews at two different locations of the company. He evaluates the cost of inviting candidates to both these locations. The plan is to invite 50% at one location, and the rest at the other location, keeping costs to a minimum.

We are given an array, `costs`, where $costs[i] = [aCost_i, bCost_i]$, the cost of inviting the i^{th} person to City A is $aCost_i$, and the cost of inviting the same person to City B is $bCost_i$.

You need to determine the minimum cost to invite all the candidates for the interview such that exactly $n/2$ people are invited in each city.

Constraints:

- $2 \leq$ `costs.length` ≤ 100
- `costs.length` is even
- $1 \leq aCost_i, bCost_i \leq 1000$

Examples

Sample example 1

Input

costs	[90, 20]	[30, 100]

Output

Output	50

Invite first person to city B for a cost of 20.
Invite second person to city A for a cost of 30.
The total minimum cost is 20 + 30 = 50.

Understand the problem

Let's take a moment to make sure you've correctly understood the problem. The quiz below helps you check if you're solving the correct problem:

Two City Scheduling

1 What is the minimum cost to invite every person to two different cities such that the same number of people arrive in each city if the costs are as follows?

[10, 15], [10, 20], [10, 25], [10, 30]?

A) 40

B) 55

C) 75

Submit Answer

Question 1 of 2
0 attempted

Reset Quiz

Figure it out

We have a game for you to play. Rearrange the logical building blocks to develop a clearer understanding of how to solve this problem.

Drag and drop the cards to rearrange them in the correct sequence.

Return `totalCost` after adding the respective costs.

Initialize a variable, `totalCost`, to `0`.

Sort the `costs` array in ascending order based on the difference between the cost of traveling to City A and City B.

Iterate over the sorted `costs` array.

Add the cost of the first half of the array to invite to City A and the second half to invite to City B in `totalCost`.

Reset Submit

Try it yourself

Implement your solution in `TwoCityScheduling.java` in the following coding playground.

Java

usercode > TwoCityScheduling.java

```
1  import java.util.*;
2
3  class TwoCityScheduling {
4      public static int twoCityScheduling(int[][] costs) {
5          // Write your code here
6          return -1;
7      }
8
9  }
```

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Test Cases Results

Case 1 Case 2 Case 3

Input #1

[[10,20],[30,200],[400,50],[30,20]]

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