## Problem 2 – Odd / Even Sum

You are given a number **n** and **2\*n** numbers. Write a program to check whether **the sum of the odd numbers is equal to the sum of the even n numbers**. The first number is considered odd, the next even, the next odd again, etc. Print as result “Yes” or “No”. In case of **yes**, print also the sum. In case of **no**, print also the difference between the odd and the even sums.

### Input

The input data should be read from the console.

* The first line holds an integer **n** – the count of numbers.
* Each of the next **2\*n** lines holds exactly one number.

The input data will always be valid and in the format described. There is no need to check it explicitly.

### Output

* The output must be printed on the console.
* Print “**Yes, sum=*S***” where ***S*** is the sum of the odd **n** numbers in case of the sum of the odd **n** numbers is equal to the sum of the even **n** numbers.
* Otherwise print “**No, diff=*D***” where ***D*** is the difference between the sum of the odd **n** numbers and the sum of the even **n** numbers. ***D*** should always be a **positive number**.

### Constraints

* The number **n** is integer in range [0...500].
* All other numbers are integers in range [-500 000 ... 500 000].
* Allowed working time for your program: 0.25 seconds.
* Allowed memory: 16 MB.

### Examples

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |  | **Input** | **Output** |
| **4**  3  **4**  -1  **-1**  2  **1**  1  **1** | Yes, sum=5 | **3**  1  **2**  3  **1**  2  **2** | No, diff=1 | **2**  1  **0**  1  **0** | No, diff=2 |