# Problem 6 – Three Brothers

Three brothers get a **sack of presents**. Each present has a **price**. Brothers want to **split the presents** **fairly** so that each brother gets **presents of equal price**. Sometimes this is possible, sometimes not. For example if the presents have prices **{1, 3, 4, 5, 3, 2}**, a **fair split** is possible: **1 + 5** = **3 + 3** = **2 + 4**. If the presents have prices **{1, 3, 5, 3}**, there is **no fair split**. Write a program to check whether a fair split exists for several sacks of presents.

## Input

* The input is read from the console. The **first line** holds an integer **n** – the number of sacks to be checked.
* Each of the **next n lines** holds the **prices of presents** in each sack, separated by space.

## Output

* For each sack of presents print at the console a single line holding “**Yes**” or “**No**”.
* Print “**Yes**” if a fair split is possible or “**No**” if no fair split exists.

## Constraints

* The number of input sets **n** is **integer** in range **[1…10]**.
* The **count of numbers** in each input set is integer in range **[1…50]**.
* **Prices** in each set are integers in range **[1…20]**.
* Time limit: **200 ms**. Allowed memory: **16 MB**.

## Sample Input and Output

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Input** | **Output** | **Comments** |  | **Input** | **Output** | **Comments** |
| 3  1 3 4 5 3 2  1 2 3  3 3 3 | Yes  No  Yes | 1+5 = 4+2 = 3+3  1 ≠ 2 ≠ 3  3 = 3 = 3 | 4  4 2 5 8 3  5 1 7 4 3 6 1  4 5 2 5 3 4 2 5  7 9 3 8 3  5 2 1 3 2 5 | No  Yes  Yes  No  No | 2+5 = 4+3 ≠ 8  3+6 = 7+1+1 = 4+5  5+3+2 = 4+4+2 = 5+5  7+3 ≠ 8+3 ≠ 9  5+1 ≠ 5 ≠ 3+2+2 |