

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
3	Yes	$1+5 = 4+2 = 3+3$
1 3 4 5 3 2	No	$1 \neq 2 \neq 3$
1 2 3	Yes	$3 = 3 = 3$
3 3 3		

Input	Output	Comments
5	No	$2+5 = 4+3 \neq 8$
4 2 5 8 3	Yes	$3+6 = 7+1+1 = 4+5$
5 1 7 4 3 6 1	Yes	$5+3+2 = 4+4+2 = 5+5$
4 5 2 5 3 4 2 5	No	$7+3 \neq 8+3 \neq 9$
7 9 3 8 3	No	$5+1 \neq 5 \neq 3+2+2$
5 2 1 3 2 5		