

A. Square of Rectangles

time limit per test: 1 second
memory limit per test: 256 megabytes

Aryan is an ardent lover of squares but a hater of rectangles (Yes, he knows all squares are rectangles). But Harshith likes to mess with Aryan. Harshith gives Aryan three rectangles of sizes $l_1 \times b_1$, $l_2 \times b_2$, and $l_3 \times b_3$ such that $l_3 \leq l_2 \leq l_1$ and $b_3 \leq b_2 \leq b_1$. Aryan, in order to defeat Harshith, decides to arrange these three rectangles to form a square such that no two rectangles overlap and the rectangles are aligned along edges. Rotating rectangles is **not** allowed. Help Aryan determine if he can defeat Harshith.

Input

Each test contains multiple test cases. The first line contains the number of test cases t ($1 \leq t \leq 100$). The description of the test cases follows.

Each test case contains a single line with 6 space-separated integers l_1, b_1, l_2, b_2, l_3 , and b_3 ($1 \leq l_3 \leq l_2 \leq l_1 \leq 100, 1 \leq b_3 \leq b_2 \leq b_1 \leq 100$) — the dimensions of the three rectangles.

Output

For each testcase, print "YES" if the rectangles can be arranged to form a square; otherwise, "NO".

You can output the answer in any case (upper or lower). For example, the strings "yEs", "yes", "Yes", and "YES" will be recognized as positive responses.

Example

input	Copy
5	
100 100 10 10 1 1	
5 3 5 1 5 1	
2 3 1 2 1 1	
8 5 3 5 3 3	
3 3 3 3 2 1	
output	Copy
NO	
YES	
YES	
NO	
NO	

Note

In the second test case, the three rectangles 5×3 , 5×1 , and 5×1 can be arranged as follows to form a square.

Codeforces Round 1033 (Div. 2) and CodeNite 2025

Finished

Practice



→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

→ Submit?

Language: GNU G++23 14.2 (64 bit, ms)

Choose file: No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
325459126	Jun/21/2025 18:42	Accepted

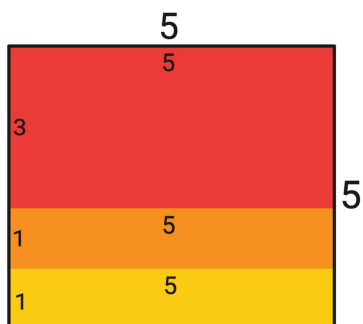
→ Problem tags

geometry math

No tag edit access

→ Contest materials

- Announcement (en)
- Statements #1 (ru)
- Statements #2 (en)
- Tutorial (en)



In the fourth test case, it can be proven that the rectangles can't be arranged to form a square with the given constraints.

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