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# Journey of the Knight

Problem Code: **KNIGHT2**

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Chef has an  $8 \times 8$  chessboard. He placed a knight on the square  $(X_1, Y_1)$ . Note that, the square at the intersection of the  $i^{th}$  row and  $j^{th}$  column is denoted by  $(i, j)$ .

Chef wants to determine whether the knight can end up at the square  $(X_2, Y_2)$  in **exactly** 100 moves or not.

For reference, a knight can move to a square which is:

- One square horizontally and two squares vertically away from the current square, or
- One square vertically and two squares horizontally away from the current square

A visual description of this may be found [here](https://en.wikipedia.org/wiki/Knight_(chess)#Movement)  
([https://en.wikipedia.org/wiki/Knight\\_\(chess\)#Movement](https://en.wikipedia.org/wiki/Knight_(chess)#Movement)).

### Input Format

- The first line contains a single integer  $T$  — the number of test cases. Then the test cases follow.
- The first and only line of each test case contains 4 integers  $X_1, Y_1, X_2, Y_2$  — where  $(X_1, Y_1)$  denotes the starting square of the knight and  $(X_2, Y_2)$  denotes the ending square of the knight.

### Output Format

For each test case, output YES if knight can move from  $(X_1, Y_1)$  to  $(X_2, Y_2)$  in **exactly** 100 moves. Otherwise, output NO.

You may print each character of YES and NO in uppercase or lowercase (for example, yes, yEs, Yes will be considered identical).

## Constraints

- $1 \leq T \leq 1000$
- $1 \leq X_1, Y_1, X_2, Y_2 \leq 8$

### Sample Input 1

3
1 1 1 1
8 8 7 6
8 8 8 6

### Sample Output 1

### Submission Ends In

1 22 8 58  
Days Hrs Min Sec

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YES  
NO  
YES

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## Explanation

**Test Case 1:** Knight can first move to (2, 3) and then back to (1, 1). He can repeat this 50 times and he will end up at (1, 1) after 100 moves.

**Test Case 2:** It can be proven that it is not possible for the knight to end at (7, 6) after 100 moves.

**Test Case 3:** Knight can first move to (6, 7) and then to (8, 6). After that, he can alternate between (6, 7) and (8, 6) for 49 times and he will end up at (8, 6) after 100 moves.

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Date Added: 3-07-2022  
Time Limit: 1 secs  
Source Limit: 50000 Bytes  
Languages: CPP17, PYTH 3.6, JAVA, C, CPP14, PYTH, PYP3, CS2, ADA, PYPY, TEXT, PAS fpc, NODEJS, RUBY, PHP, GO, HASK, TCL, kotlin, PERL, SCALA, LUA, BASH, JS, rust, LISP sbcl, PAS gpc, BF, CLOJ, R, D, CAML, swift, FORT, ASM, FS, WSPC, LISP clisp, SQL, SCM guile, PERL6, ERL, CLPS, PRLG, SQLQ, ICK, NICE, ICON, COB, SCM chicken, PIKE, SCM qobi, ST, NEM

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