

02 : 07 : 30
HRS MIN SEC

May Easy' 19

LIVE

May 13, 2019, 09:30 PM IST - May 14, 2019, 12:30 AM IST

8
LIVE EVENTS

INSTRUCTIONS

PROBLEMS

SUBMISSIONS

LEADERBOARD

ANALYTICS

JUDGE

[← Problems / Binary Sequence](#)

Binary Sequence

Max. Marks: 100

Given four integers x, y, a and b . Determine if there exists a binary string having x 0's and y 1's such that the total number of subsequences equal to the sequence "01" in it is a and the total number of subsequences equal to the sequence "10" in it is b .

A binary string is a string made of the characters '0' and '1' only.

A sequence a is a subsequence of a sequence b if a can be obtained from b by deletion of several (possibly, zero or all) elements.

Input Format

The first line contains a single integer T ($1 \leq T \leq 10^5$), denoting the number of test cases.

Each of the next T lines contains four integers x, y, a and b ($1 \leq x, y \leq 10^5, (0 \leq a, b \leq 10^9)$), as described in the problem.

Output Format

For each test case, output "Yes" (without quotes) if a string with given conditions exists and "No" (without quotes) otherwise.

SAMPLE INPUT



```
3
3 2 4 2
3 3 6 3
3 3 4 3
```

SAMPLE OUTPUT



```
Yes
Yes
```

?

No

Explanation

When x, y, a and b are 3, 2, 4 and 2 respectively, string 00110 is a valid string. So answer is Yes

When x, y, a and b are 3, 3, 4 and 3 respectively, we can't find any valid string. So answer is No.

Time Limit: 2.0 sec(s) for each input file.

Memory Limit: 256 MB

Source Limit: 1024 KB

Marking Scheme: Marks are awarded if any testcase passes.

Allowed Languages: Bash, C, C++, C++14, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, Racket, Ruby, Rust, Scala, Swift, Swift-4.1, TypeScript, Visual Basic

CODE EDITOR

Enter your code or [Upload your code](#) as file.

[Save](#)

Bash (GNU bash, version 4.3 ▼)



```
1 # Sample bash code
2
```

2:1

Press Ctrl/Command+Spacebar for autocomplete suggestions (accuracy dependent on connection stability).

☒ Provide custom input



COMPILE & TEST

SUBMIT

 **Tip:** You can submit any number of times you want. Your best submission is considered for computing total score.

8

LIVE EVENTS

Your Rating:

 [View all comments](#)

- About Us

Technical Recruitment

Developers Wiki

Press
- Innovation Management

University Program

Blog

Careers
- Reach Us