



02:07:30 HRS MIN SEC

# May Easy' 19

LIVE

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

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 a.

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.

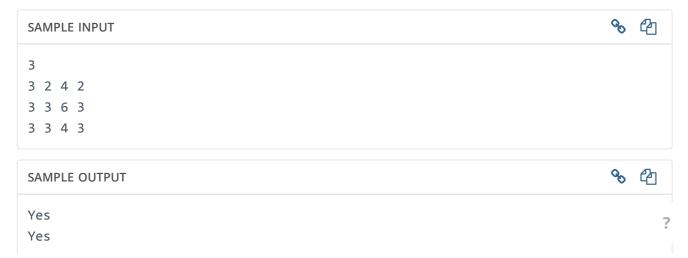
#### **Input Format**

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 (( $1 \le x, y \le 10^5$ , ( $0 \le a, b \le 10^9$ )), 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.



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.

LIVE EVENT

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

Memory Limit: 256 MB
Source Limit: 1024 KB

102110

**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 ▼





# Sample bash code

2

2:1

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

**▼** Provide custom input

?

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

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