

Problem

You are given two positive integers A and B . You need to construct two **different** binary strings (i.e, they are strings which consist of only 0s and 1s), which satisfy these two conditions:

- Both the strings should be palindromes.
- Each string should have exactly A 0s, and exactly B 1s in them.

Output Yes if two such different binary strings can be constructed and No otherwise.

Note:

- A string is said to be a palindrome, if the string and the reverse of the string are identical.
- Two strings are said to be different if either their lengths are different, or if they differ in at least one character.

Input Format

- The first line of input will contain a single integer T , denoting the number of test cases.
- Each test case contains two space-separated integers, A and B , in a new line.

Output Format

For each test case, output on a new line 'Yes', if you can construct two different binary strings satisfying the conditions. If not, output No.

You may print each character of the string in uppercase or lowercase (for example, the strings Yes, yes, YES, and YEs will all be treated as identical).

Constraints

- $1 \leq T \leq 10^5$
- $1 \leq A, B \leq 10^6$

Sample 1:

Input

Output

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