Problem I Infosys Tennis Platform

Time limit: 3 seconds Memory limit: 1024 megabytes

Problem Description

Tennis is a racket sport that can be played individually against a single opponent (singles) or between two teams of two players each (doubles). A tennis match is composed of points, games, and sets. A set consists of a number of games, which in turn each consist of points. Typical tennis rules are as follows:

- A set is won by the first side to win 6 games, with a margin of at least 2 games over the other side (e.g. 6–3 or 7–5).
- A game is won by the first side to win 4 points, with a margin of at least 2 points over the other side (e.g. 4–1 or 9–7).

Tennis is a sport that has been played for decades. With the devoloping techonologies such as AI and big data, tennis matches are evolving. Infosys Tennis Platform is the digital brain of professional tennis technology experience. The system is an open-source polycloud platform architected to be plug-and-play. Harnessing every data source, aggregating multiple applications and serving any tournament need, the system is the future of convergent and unified sporting experiences.

As a professional analyst and an amateur tennis player, you are asked to verify if the system is reliable. Given the numbers of total points won in a set by both sides, determine if the record is reasonable for the left side to win the set according to the above rules.

Input Format

The first line contains an integer n indicating the number of sets to verify. Each of the following lines contains two dash separated integers L_i and R_i indicating the number of total points won from both sides winthin a set.

Output Format

Output one line for each set. Output YES if it is possible that the set is won by the left side. Otherwise, output NO instead.

Technical Specification

- $1 \le n \le 5000$
- $0 \le L_i, R_i \le 80$

Sample Input 1	Sample Output 1	
6	NO	
23-10	YES	
24-12	YES	
24-24	NO	
24-30	YES	
26-30	NO	
60-30		L