Harry and Boris gathered at Boris's house to play computer games. Harry has 1 soldier with life points, which deals 1 life point to his opponents with one of his hits in battle. Boris has an army of soldiers, each of whom has 1 life point and is characterized by 2 natural numbers - . That soldier will take a random natural number in the interval [ from the opponent's life points. Because Boris's army is large, he can only send 1 soldier to fight Harry's soldier at a time. All soldiers hit equally fast. Help Boris find out if the probability of killing Harry's soldier is at least

Formally, we want to know whether if we choose natural numbers such that and each of has an equal probability of being selected for the corresponding , the probability that is true is at least

Answer such tests.

**Input**

The first line of the file **battle.in** contains the number. Then, for each test, the next line contains the numbers and , followed by pairs of natural numbers - .

**Output**

On lines in the file **battle.out**, print “YES” or “NO” depending on whether the probability that Boris's soldiers will kill Harry's soldier is at least

**Constraints**

**Time limit: 0.6 sec.**

**Memory limit: 256 MB.**

**Sample test**

|  |  |
| --- | --- |
| **Input (battle.in)** | **Output (battle.out)** |
| 3  1 4  4 6  1 5  4 6  1 6  4 6 | YES  YES  NO |