**Problem:**

In the multiverse saga, the Timekeeper assigns strengths to the different Hulks and Captain Americas of the different Universes. No two Hulk and no two Captain America can have the same strength.

The timekeeper wrote down the strengths of both the superheroes on the same page and in random order instead of writing them on different pages. Now he is asking for your help to find out if the strengths he wrote are valid or not.

**Input:**

The first line of the input contains a single integer T denoting the number of test cases. The description of T test cases follows.

Each test case consists of two lines of input.

The first line of each test case contains N, denoting the number of universes.

The second line contains 2N space separated integers A1, A2, … A2N – denoting the strengths.

**Output:**

For each test case, print 1 if the given array represents valid list of strengths, and 0 otherwise.

**Constraints:**

1 ≤ T, Aj ≤ 100

1 ≤ n ≤ 50

**Explanation:**

**Example 1:**

Let Hulk’s strengths are 4 and 2.

And Captain America’s strengths are 3 and 4.

As no two Hulk and no two Captain America have same strength, the given list is valid.

**Example 2:**

There is no such combination to satisfy Timekeeper’s condition.