

Jiminy's Jacuzzi

Filename: jacuzzi

Jiminy is opening up a new Jacuzzi business. In order to set-up his showroom, he had his assistant assemble each model of Jacuzzi. Unfortunately, his assistant made a poor choice and mixed up all the sides of all of the Jacuzzis! Now, Jiminy and his assistant are having trouble piecing sides together in order to build the Jacuzzis. They need your help!

The Problem:

Given the lengths of the sides that may make up a Jacuzzi, determine whether it is possible to build one using all of the sides or not. A Jacuzzi is formed by aligning the sides into a polygonal shape with positive area (e.g. the outline of the Jacuzzi). Note that neither Jiminy nor his assistant can cut any of the sides (they must use them as-is) and all sides must be used when constructing each Jacuzzi.

The Input:

The input will begin with a line containing a positive integer, t , representing the number of Jacuzzis to check. Each Jacuzzi then starts with a line containing an integer, n ($1 \leq n \leq 100$), representing the number of sides of the Jacuzzi being built. The next line contains n integers representing the length of each side; each integer will be separated by a single space. All of the side lengths are between 1 and 100, inclusive.

The Output:

For each Jacuzzi, output a line "Jacuzzi # x : m " where x is the number of the Jacuzzi in the input (starting from 1) and m is "YES" if Jiminy can build the Jacuzzi or "NO" otherwise.

Sample Input:

```
5
5
1 2 3 4 11
3
1 2 4
6
2 3 4 5 6 7
3
1 1 10
6
99 2 3 4 5 6
```

Sample Output:

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Jacuzzi #1: NO
Jacuzzi #2: NO
Jacuzzi #3: YES
Jacuzzi #4: NO
Jacuzzi #5: NO
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