

Given a set of sticks of various lengths, is it possible to join them end-to-end to form a square?

Input

The first line of input contains N , the number of test cases. Each test case begins with an integer $4 \leq M \leq 20$, the number of sticks. M integers follow; each gives the length of a stick — an integer between 1 and 10,000.

Output

For each case, output a line containing 'yes' if it is possible to form a square; otherwise output 'no'.

Sample Input

```
3
4 1 1 1 1
5 10 20 30 40 50
8 1 7 2 6 4 4 3 5
```

Sample Output

```
yes
no
yes
```

