

You are given an array `Arr` consisting of `n` integers, you need to find a valid triplet as explained below.

An array is said to have a valid triplet $\{arr[i], arr[j], arr[k]\}$ if there exists three indices `i`, `j` and `k` such that $i \neq j$, $j \neq k$ and $i \neq k$ and $arr[i] + arr[j] = arr[k]$ or $arr[i] + arr[k] = arr[j]$ or $arr[k] + arr[j] = arr[i]$.

For Example:

```
Arr = 10, 5, 5, 6, 2,
```

```
In this array, the triplet {10, 5, 5} is valid triplet because, 5 + 5 = 10.
```

Note:

```
The elements in the array need not be distinct.
```

Input Format:

```
The first line of the input contains an integer T, denoting the number of test cases.
```

```
The first line of each test case contains the integer N, denoting the size of the array.
```

```
The second line of each test case contains N space-separated integers denoting the array elements.
```

Output Format:

```
For each test case, every line of output contains "true" if there is a valid triplet and the user has returned a valid one, else "false" will be printed.
```

Note :

```
You do not need to print anything, it has already been taken care of. Just implement the given function.
```

Constraints:

```
1 <= T <= 50
```

```
1 <= N <= 10^3
```

```
1 <= Arr[i] <= 10^4
```

Time Limit: 1 sec

Sample Input 1:

```
2
4
1 1 1 1
5
10 5 5 6 2
```

Sample Output 1:

```
false
true
```

Explanation For Sample Input 1:

In the first case, no valid triplet can be formed.

5 5 10 is the triplet in which the sum of two elements {5,5} is equal to the third {10}.

Sample Input 2:

```
2
6
1 2 3 1 2 3
6
1 1 2 2 1 1
```

Sample Output 2:

```
true
true
```