

A B2-Sequence is a sequence of positive integers $1 \leq b_1 < b_2 < b_3 \dots$ such that all pairwise sums $b_i + b_j$, where $i \leq j$, are different.

Your task is to determine if a given sequence is a B2-Sequence or not.

Input

Each test case starts with $2 \leq N \leq 100$, the number of elements in a sequence. Next line will have N integers, representing the value of each element in the sequence. Each element b_i is an integer such that $b_i \leq 10000$. There is a blank line after each test case. The input is terminated by end of file (EOF).

Output

For each test case you must print the number of the test case, starting from 1, and a message indicating if the corresponding sequence it is a B2-Sequence or not. See the sample output below. After each test case you must print a blank line.

Sample Input

```
4
1 2 4 8
```

```
4
3 7 10 14
```

Sample Output

Case #1: It is a B2-Sequence.

Case #2: It is not a B2-Sequence.