

## Day 86 coding Statement:

### Solution:

```
import java.util.TreeMap;
import java.io.IOException;
import java.io.PrintWriter;
import java.util.ArrayList;
import java.util.Map;
import java.util.Scanner;

public class Day86 {

    public static void main(String[] args) throws IOException {

        Scanner in = new Scanner(System.in);

        PrintWriter out = new PrintWriter(System.out);

        int t = in.nextInt();

        while(t-- > 0) {

            int n = in.nextInt();

            Map<Integer, Integer> subsets = new TreeMap<Integer, Integer>();

            for(int i = 0; i < 1 << n; i++) {

                int s = in.nextInt();

                Integer prev = subsets.get(s);

                if (prev == null)

                    prev = 0;

                subsets.put(s, prev + 1);

            }

            subsets.remove(0);

            ArrayList<Integer> nums = new ArrayList<Integer>();

            for(int i = 0; i < n; i++) {

                nums.add(subsets.keySet().iterator().next());
```

```

        for(int mask = 1 << nums.size() - 1; mask < 1 << nums.size(); mask++)
    {
        int s = 0;
        for(int j = 0; j <= i; j++)

            if ((mask & (1 << j)) > 0)
                s += nums.get(j);
        Integer cnt = subsets.get(s);
        if (cnt == 1)
            subsets.remove(s);
        else
            subsets.put(s, cnt - 1);
    }
}
for(int i = 0; i < n; i++)
    out.print(nums.get(i) + " ");
    out.println();
}
in.close();
out.close();
}
}

```