# Q1 - Hash-table

In this challenge, we're going to implement two simple hash tables using the hash function h(x). **h(x) = x % 19**

1. Open addressing hash table using linear probing. Linear Probing (key, probe) = hash(key) + probe
2. Open addressing hash table using quadratic probing. Quadratic Probing (key, probe) = hash(key) + probe²

**Input Format**

On the first line of input is a single positive integer $n$, telling how many elements need to be add to the hash table. On the second line will be $n$ numbers, which will be add to the hash table in order.

**Constraints**

2 <= $n$ <= 19.

**Output Format**

You need to output the hash table after adding all the numbers. Output 0 when the bucket is empty.

The first line will be the linear probing one. The second line will be the quadratic probing one.

**Sample Input 0**

```
8
3 22 41 5 38 27 28 65
```

**Sample Output 0**

```
38 0 0 3 22 41 5 0 27 28 65 0 0 0 0 0 0 0 0
38 0 0 3 22 5 0 41 27 28 0 0 65 0 0 0 0 0 0
```

**Sample Input 1**

```
5
1 2 3 10 20
```

**Sample Output 1**

```
0 1 2 3 20 0 0 0 0 0 10 0 0 0 0 0 0 0 0
0 1 2 3 0 20 0 0 0 0 10 0 0 0 0 0 0 0 0
```