

# Sums and addends

Given a natural number  $n$ , please find all non-decreasing sequences of integers, such that the sum of all the elements of the sequence is equal to  $n$ . Numbers in the sequence may repeat. Due to the imposed politically correct "parity policy" each valid sequence must contain the same number of odd and even elements.

## Input data specification

The first line contains the number of test cases  $t$ . Each of the following  $t$  lines contains just one number  $1 \leq n \leq 40$ .

## Output data specification

For each test case print all possible sequences satisfying the problem criteria. Sequences must be given in the lexicographic order, with each sequence printed in a separate line.

If no valid sequence exists for a given value of  $n$ , print the text "Impossible".

## Example 1

### Input:

```
3
4
8
7
```

### Output:

```
Impossible
1 1 2 4
1 2 2 3
1 6
2 5
3 4
```

## Scoring

By solving this problem you will score 10 points.