Problem E
Ancient Tablet
Max no. of test cases: 45
Time limit: 5 seconds

In year 2030, the National Cryptography Programming Challenge (NCPC) Museum has an ancient digital tablet on display and for interactive playing. When enter a positive integer x, the tablet shows a sequence of numbers. JP visited the museum and played with the tablet with the following results.

JP entered number 3, the tablet showed "2 3 1 2 1 3".
JP entered number 4, the tablet showed "2 3 4 2 1 3 1 4".
JP entered number 5, the tablet showed "0".

After playing a few more rounds, JP soon discovered the secret behind this tablet. For a given number x, if possible, a sequence of numbers is displayed. The sequence is made up of numbers between 1 and x. Each number appeared exactly twice. Furthermore, there is

- exactly one number between the two "1s" in the sequence,
- exactly two numbers between the two "2s" in the sequence,
- exactly three numbers between the two "3s" in the sequence,
- . . .
- exactly x numbers between the two x in the sequence.

JP also noted that if no such sequence exists, then an "0" is displayed.

Please write program to mimic the behavior of this old tablet.

Input File Format

The first line of input contains an integer n, indicating the number of test cases. For each test case, there is exactly one positive integer x, $1 \leq x \leq 45$, on a single line.

Output Format

For each test case, output either a single "0", or a sequence of $2x$ integers that meet the description above on a single line. Integers on the same line should be separated by blank space.

Sample Input

```
4
3
4
5
8
```

Output for the Sample Input

```
2 3 1 2 1 3
2 3 4 2 1 3 1 4
0
1 5 1 4 6 7 8 5 4 2 3 6 2 7 3 8
```