N Queens

We wish to solve the N Queens problem. However, we wish to only find the lexicographical first solution. Let $\{p_1, p_2, p_3, \ldots, p_N\}$ be a permutation of the set $\{1, 2, 3, \ldots, N\}$. We let each permutation describe a placement of queens as follows: p_i represents the column in which the queen on row i is placed. Thus, the permutation $\{2, 4, 1, 3\}$ represents queens in row 1 column 2, row 2 column 4, row 3 column 1 and row 4 column 3, as shown below:

	Q		
			Q
Q			
		Q	

This is the first lexicographical solution for N = 4, since none of the queens shown above share the same row, column or diagonal. (Note: To compare two solutions in lexicographical ordering, find the first corresponding number that differs. The one that comes first is the one that has a lower number for the first differing number. Thus, 2, 4, 1, 3 comes before 3, 1, 2, 4, but after 2, 3, 4, 1.)

The Problem
Given an input value N, determine the first valid lexicographical solution to the N Queens problem.

The Input
The first line of the input file will contain a single positive integer, *T (T < 50)*, representing the number of test cases. Each test case will be on a line by itself, with a single integer, *N (N < 16)*, the input size for that case.

The Output
For each case, output the desired permutation, with spaces following each item in the permutation.

Sample Input
```
2
4
5
```

Sample Output
```
2 4 1 3
1 3 5 2 4
```