Lucky
Input File: Lucky.txt

The lucky numbers between 1 and n are a set of integers between 1 and n (inclusive) that are "lucky" enough to survive the following screening process:

> 1 is a lucky number. The next integer encountered between 1 and n is 2, so every second number between 1 and n is eliminated (2, 4, etc.). The next integer encountered in the resulting set of numbers is 3, so every third number is eliminated (5, 11, etc). The next integer encountered in resulting set of numbers from 1 to n is 7, so every seventh number is eliminated (19, 31, etc). The screening process continues in this way until no more numbers can be eliminated.

If n were 23, the following would be the screening process to generate the lucky numbers;

```
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
1   3   5   7   9    11    13    15    17    19    21    23
1   3       7   9          13    15          19    21
1   3       7   9          13    15                21
1   3       7   9          13    15                21
```

Inputs
The first line will contain the number of lucky number sets to generate, g. The next g lines will give the maximum possible lucky number, n, in each of the data sets.

Outputs
There will be two lines of output for each set of lucky numbers. The first line will contain the maximum possible lucky number for the data set. The next line will contain the lucky numbers in that data set in ascending order, with each number separated by one space.

Sample inputs
```
2
23
60
```

Sample output
```
23
1 3 7 9 13 15 21
60
1 3 7 9 13 15 21 25 31 33 37 43 49 51
```