

## 835 Square of Primes

Figure 1 shows a square. Each row, each column and the two diagonals can be read as a five digit prime number. Both diagonals are read from left to right.

```

1  1  3  5  1
3  3  2  0  3
3  0  3  2  3
1  4  0  3  3
3  3  3  1  1

```

Figure 1 - Example square of primes.

Using the data in the input file, write a program that constructs such squares.

- The prime numbers must have the same digit sum (11 in the example).
- The digit in the top left-hand corner of the squares is pre-determined (1 in the example).
- A prime number may be used more than once in the same square.
- If there are several solutions, all must be present.

### Input

The input begins with a single positive integer on a line by itself indicating the number of the cases following, each of them as described below. This line is followed by a blank line, and there is also a blank line between two consecutive inputs.

The input file contains two lines. The first line contains a single integer which is the digit sum of the prime numbers. The second contains the digit in the top left corner of the square.

### Output

For each test case, the output must follow the description below. The outputs of two consecutive cases will be separated by a blank line.

In the output, write five lines for each solution found, where each line in turn consists of a five digit prime number. The solutions must be in **ascending order**, separated by an empty line. (the above example has three solutions)

### Sample Input

```

1

11

1

```

**Sample Output**

11351  
14033  
30323  
53201  
13313

11351  
33203  
30323  
14033  
33311

13313  
13043  
32303  
50231  
13331