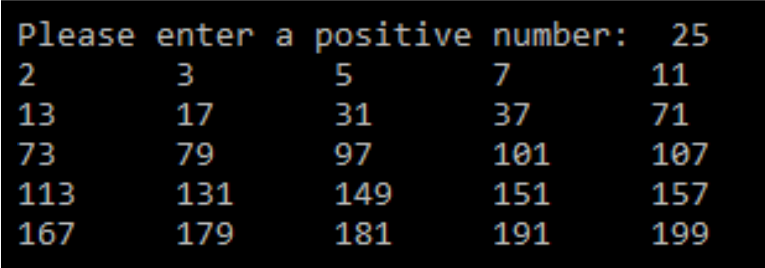


CMPS 148 Homework 1

Calculate the first N *emirp* (prime, spelled backwards) numbers, where N is a positive number that the user provides as input. An Emirp is a prime number whose reversal is also a prime. For example, 17 is a prime and 71 is a prime, so 17 and 71 are emirps. Write a program that prints out the first N emirps, five on each line.

For example:



```
Please enter a positive number: 25
2      3      5      7      11
13     17     31     37     71
73     79     97     101    107
113    131    149    151    157
167    179    181    191    199
```

For this assignment, you are **required** to make use of 2 functions (which you must write).

```
bool isPrime(int value); // Returns true if value is a prime number.
```

```
int reverse (int value); // Returns the reverse of the value (i.e. if value is 35, returns 53).
```

You should follow a top-down design, using these functions in conjunction with logic in main, to perform the computation of N emirps and print them out according to the screenshot above. The general outline for main would be as follows:

Step 1: Ask user for positive number (input validation)

Step 2: Initialize a variable Test to 2

Step 3: While # emirps found is less than the input:

 Call isPrime with Test, and call it again with reverse(Test). If both are prime, print and increment number of emirps found.

 Test++