

## Practice Exercise #10: Prime Number

[http://www.comp.nus.edu.sg/~cs1010/4\\_misc/practice.html](http://www.comp.nus.edu.sg/~cs1010/4_misc/practice.html)

**Reference:** Week 4 Exercise #3

**Date of release:** 1 September 2014

**Objective:** Repetition statement

**Task statement:**

*Primality test* is a classic programming problem:

- Given a positive integer, determine whether it is a prime
- A prime number has two distinct factors (divisors): 1 and itself. Examples: 2, 3, 5, 7, 11.  
(Note that 1 is not a prime!)

Write a program **primeTest.c** to read in a positive integer and determine if it is prime.

The program should contain a function **is\_prime(int)**. What is its return type?

**Sample runs:**

```
Enter a positive integer: 131
131 is a prime.
```

```
Enter a positive integer: 713
713 is not a prime.
```