Problem Set 2 Exercise #11: Prime Number

Reference: Lecture 5 notes

Learning objective: Repetition statements

Estimated completion time: 30 minutes

Problem statement:

A prime number has two distinct factors (divisors): 1 and itself. Examples of prime numbers are 2, 3, 5, 7 and 11. Note that 1 is not a prime!

Write a program **prime.c** to read in a positive integer and determine if it is a prime. The program should contain a function

```
is_prime(int num)
```

that checks whether **num** is a prime. What is the correct return type of this function?

Sample run #1:

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

Sample run #2:

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