

## Problem Set 2 Exercise #15: Prime Number

**Reference:** Lecture 4 notes

**Learning objectives:** Repetition statements; Writing Boolean methods

**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 **PS2\_Ex15\_Prime.java** to read in a positive integer and determine if it is a prime.

Your program should contain a method

```
isPrime(int number)
```

that takes a number and check whether it is a prime. What is the correct return type of this method?

### 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
```