

I.8 Primality Function

Caitlin Ward

February 25, 2019

My primality checker takes the inputted variable, N , by running through a for-loop in the range $(2, N)$ that returns "True" if N is not divisible (the remainder of N by a number in the range is not 0) by at least one of the numbers in the range (this makes it a prime number since prime numbers are only divisible by one and them self, which are not included in the range). However, if N is divisible by something in the range, "False" is printed to the screen. Once one of these is met (true or false), the loop breaks.

The second part of the code allows us to find the n^{th} prime number by using a for-loop in the range of 3 to something really big. The list titled "*prime_list*" already contains the number 2 as it is the first prime number. The for-loop then utilizes the prime check from above to go through the range and if the return is "True", the value is added to the list. Then the n^{th} prime number can be called.