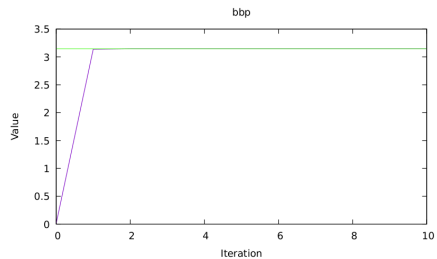## Assignment 2 Writeup

During this assignment we were tasked with creating math library functions that would compute the value of Pi as closely as possible to the math library. Below are graphs that I was able to generate that represent the inclination of my program to achieve the same output as the math library.

The first graph is of my BBp function. As you can see in this graph the purple line represents my program's calculation and how it rises in a linear pattern to the green line which represents the math library value. During iteration 1 my program hits the mark where it matches the library definition of pi. When writing this function I had to keep in-mind that my iterator count should start from 1 and increase by 1 every time. I incorporated this in the for loop of my function. The program gives a very accurate reading of the value of PI and it stays accurate even through other iterations.
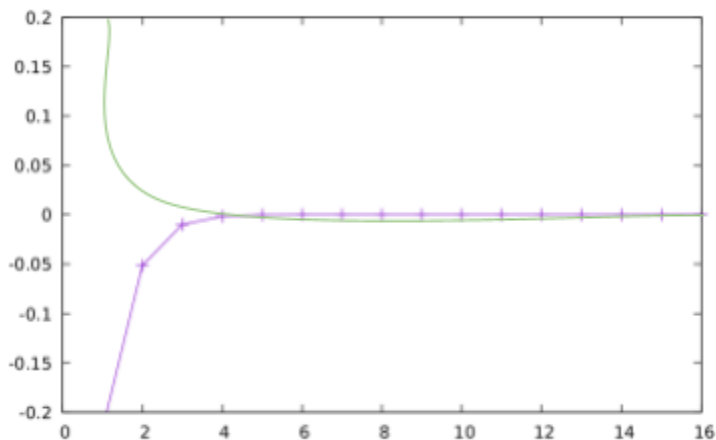
The second graph is an image of my e function graph. As you can see the purple line represents the calculation of e and the bars represent the iteration . As you can see the graph plateaus to a constant of 0 as it approaches the pi value.

Euler
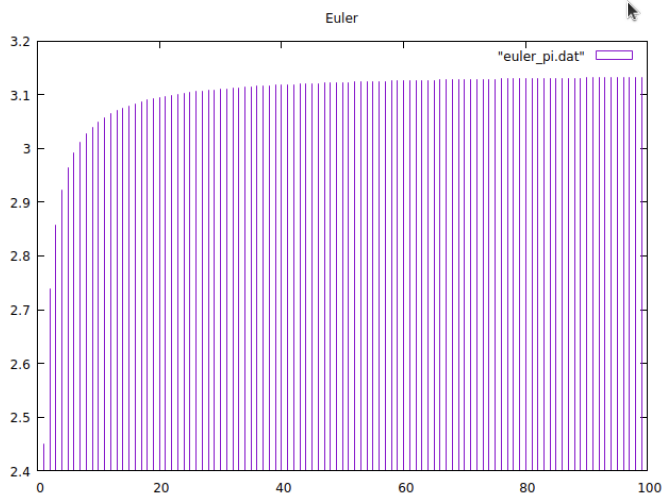
In this graph you can see how the values of each iteration get closer and closer to 3.14 which can be represented on the y axis. This Is a demonstration of how my function computes the pi value.

In both these graphs you can clearly see how the functions bring themselves close to the value of the math library. The Functions have minor discrepancies which are visible about 5 decimal places later numerically. All in all the functions can compute a very accurate value of pi.