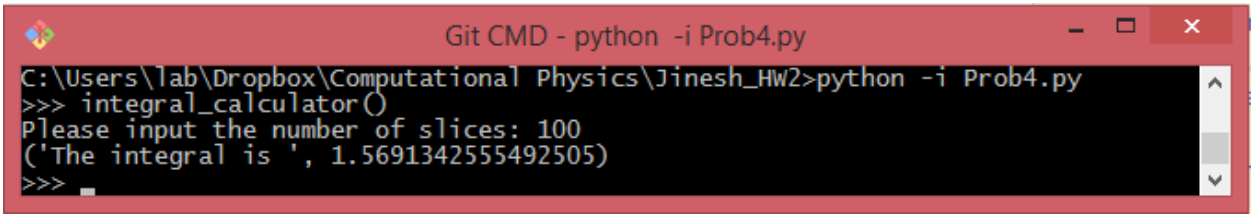
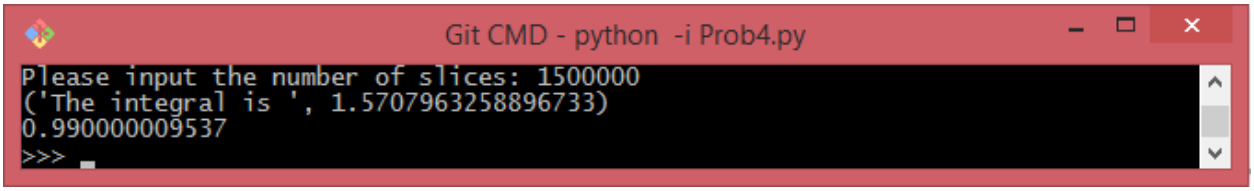
Problem 4:



For part A, this is the integral for 100 slices, which isn't exactly far from the value of pi/2 but is far enough that it could cause more rounding error.



Using the time.clock() function in python, I was able to time the total computation time for the integral, and found that around 1500000 slices was sufficient for the integral to take about 1 second of time, which drastically increased the accuracy.