

Physics 4350 Computational Physics  
Problem Set #10

1. Calculate an approximate value for  $\pi$  using the algorithm of Buffon's needle as shown in class. Calculate the variance of the estimate for  $n=10^3, 10^5, 10^6, 10^7$ , and put these values, along with the estimated value for  $\pi$ , in a table.
2. Chapter 10, problem 13. Romberg integration problem.