

Functions:

1. Create a function to evaluate the definite integral using trapezoidal rule
 - a. Have the function take in equation, interval, and subinterval
 - b. Find the width of the subintervals
 - c. Then using information on http://www.mathwords.com/t/trapezoid_rule.htm a way to find the area is coded
2. Create a function to plot the graph
 - a. Using the interval given the graph is plotted by creating a bunch of points between the interval and evaluating the function at each point and plotting
 - b. The function uses numpy to create a range out of the interval to plot on

Program:

The program requires a way to input user data and return an interval from that and then plug that into the functions above the program also must read in the files

Other Information:

The subinterval chosen is 200,000 because it finds a very precise measurement but doesn't take too long to evaluate each function. The program uses variations of looping, numpy ranges, and if/else statements to find the area under the cover and to plot the graph. The figure must be closed for the program to find the area of the next curve and plot the next figure.