1. To do:
    a. Write a function for Monte Carlo integration.
    b. Write a program to calculate $\int_a^b sin(x)dx$ for $a = 0$, $b = 1$ using the above function taking taking 1000 Monte Carlo steps.
    c. Find the values for 1000 such runs. (Don't run it a thousand time, but use a loop). Make a scatter plot of all the values.
    d. Find the reference value from the standard library or calculate analytically.
    e. Calculate and print Mean, Median, Standard deviation, and Mean Absolute Error (using reference value) of the results from the 1000 runs.
2. To submit:
    a. the code/program
    b. the plot
    c. the Mean, Median, Standard deviation, and MAE.