In-Class Activity 1 - Using the Plot Function ME 3001-002- Mechanical Engineering Analysis - Fall 2021

Overview:

You will write a program to generate sample data and graph this data in a correctly formatted scatter plot shown in the figure window.

Learning Objectives:

• You will practice and learn to produce organized graphs to represent a response equation.

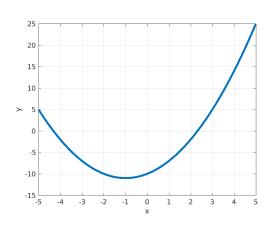
Required Materials:

• Your Computer: This activity requires a computer with MATLAB or Octave installed.

Activity:

1. Consider the parabola shown below and write the mathematical function describing the height y(x) and a function of the variable x.

$$y(x) = fn(x) =$$



- 2. Write a simple MATLAB program named **<USERNAME>_using_plot.m** to graph the function in the Figure(1) window. Use a range range of x-values ranging from x = -5 to x = 5 and a stepsize that allows the curve to appear smooth. Label all the axes and give the plot a reasonable title.
- 3. Estimate or find the values of x that make the function y(x) equal to zero. Show two additional markers on the plot to indicate these points.
- 4. Save the figure as a PNG file called **<USERNAME>_using_plot.png**

Submit:

Submit <USERNAME>_using_plot.m and <USERNAME>_using_plot.png to the Activity 1 folder before the posted due date.