

ENGINEERING H192
DAILY ASSIGNMENT B17

Using the built in MATLAB editor, create a MATLAB script file containing the commands you used for Steps 1, 2, & 3 of assignment **B16** along with comments to explain in detail what the script file does. Save the file as **b17.m**. Then, using MATLAB, run the script file and verify that it produces the same results as parts 1, 2, and 3 of **B16** did except for the plot title which changes from B16 to B17. Print out **b17.m** and submit a copy along with your plot and this assignment sheet.

Part 1:

For easy reference, steps 1, 2, and 3 of **B16** were:

1. Calculate and display the square of all the even integers from two to twenty inclusive.
2. Calculate and display, using increments of $\pi/10$, the cosines of all angles between $\pi/2$ and $3\pi/2$ radians, inclusive.
3. Create, but **do not display**, a vector named x that begins with 0 and increases to 20 in increments of 0.2 using the form $x = 0: \dots ;$. Using the equation $y = 5x^2 - 3.5$, define, but **do not display**, a second vector y . (**Note:** you will need to use $.^$ for exponentiation. Why?)

Plot y versus x (y on the vertical axis, x on the horizontal axis). Label the axes with their variable names (x and y) and title the plot "**Assignment B16 – Part 3, your name, seat no. xx**". Print the plot.

Part 2:

Create a script file which receives as inputs the lengths of the two sides of a right triangle and displays the length of each side of the triangle and its area. The script file must contain comments which specify its functionality. Name the script file **b17_triangle.m**. Print out the results of two separate executions of this script file as well as a copy of **b17_triangle.m**

Name _____ Instructor _____ Seat _____ Hour _____