MATH 3341 — Fall 2019
Lab 01: Introduction to MATLAB

In this lab you will practice using the command window to carry out basic calculations, learn how to use the help function, MATLAB documentation, and record your input and output using the `diary` function. First, follow the Windows Intructions to create the working directory.

1. In the command window enter the command `diary('lab_01_output.txt')` this will create a `.txt` file. This will record all input and output in the command window until you type the command `diary off`.

2. Type the command `beep off`. This will disable the sound that plays when there is an error in your code.

3. Use the `help functionName` to search for the relevant function in the problems below. Consider your 'answer' to this question to be the output generated by the `help` command.

   (a) What type of logarithm does the `log(x)` function calculate?

   (b) Does the MATLAB default setting calculate trigonometric functions in radians or degrees?

4. Carry out the following calculations using normal math operators:

   (a) $2 + 5$

   (b) 4^5

   (c) $7 \cdot 6$

   (d) $3/8$

   (e) $54460 - 2342$

   (f) $\cos(50^\circ)$

   (g) $\sqrt{4}$

   (h) $\ln(3)$

   (i) $\sin\left(\frac{\pi}{2}\right)$

   (j) e^{34}

5. For problems (a) - (e) you must also carry out each calculation using functional notation for each operation. Use the `help` command and/or search the MATLAB documentation to find what the functional notation is for each operation.

6. When you complete the above tasks enter the command `diary off`. This will stop recording the input and output in the command window.

Follow the Overleaf Instructions to set up an account, make a copy of the template, then upload `lab_01_output.txt` to the folder `src` on Overleaf, then click Recompile and download the generated PDF file to WyoCourses.