Name: Andrew Brown	Lab Time: T 12:00
People Worked With: Cailin (TA)	Websites Used:
Time spent on zyBooks (hrs):	Time spent on lab (hrs):
Submission Instructions	

Turn all work in to Lab 0 on Gradescope (PDF) and Canvas (.zip file), even if it is not complete yet. If you are not finished, complete the assignment outside of lab and re-submit to Lab 0 on Gradescope and Canvas. All labs are typically due at the same time on Monday every week, but check Canvas if in doubt.

FOR THIS LAB ONLY: You must turn in both the PDF and the zip file before you leave lab.

Learning objectives:
- Know how to fill out the lab exercise assignments (this document
  - Where to put scripts/how to copy them in
  - How to copy images into the document
  - How to copy command-line output into the document
- Know how to turn in a lab (or homework) document to Gradescope
  - How to save this document as a pdf and upload it to Gradescope
  - How to mark pages in the document for each assignment
- Know how to turn in the zip files for a lab (or homework)

New MATLAB commands
These are highlighted in **bold** in the instructions below.
- `plot(xs,ys)` – plot the x,y points

Lab Problems

Files to download to your Lab 0 Folder
• *Download the myFirstLab.m file from Canvas*   • *Download this Word document from Canvas (if you haven't already)*

Getting Started

This is a set of instructions to do BEFORE you start the lab. Skip this part at your peril; these instructions are not graded, but skipping them may make doing the lab harder…

- **Set up cloud storage for this class**. I highly recommend setting up one of the following for keeping your files for this class. If it's in the cloud, you can get to it from anywhere. If none of these are working (and the TAs can't fix your problem) go to the engineering help desk in Dearborn 120A for more help after lab and then move your files over.
  - Use your oregonstate Google Drive: https://www.google.com/drive/download/
  - Use Dropbox: https://www.dropbox.com/login
  - Use Kumo (syncs all cloud storage): https://it.engineering.oregonstate.edu/kumo
- For all of these you need to make a local drive on your computer; don't try to do this through the web interface. A local drive will show up just like any other folder in your account. You'll want to (after class) set up your laptop in the same way
- (AFTER LAB WHEN YOU GET HOME) **Download MATLAB onto your laptop:** http://is.oregonstate.edu/service/software/matlab
  - Note: You do not need all of the packages/libraries, so if you are limited on storage you do not need to include all of them. But make sure you include the statistics and fit packages

Problem 1
Create a directory structure for this class and download the first script into the Lab 0 folder. Your directory structure should have the class name (ENGR112), a folder for labs, and a folder for homeworks. Make the initial lab0 and lab1 and homework1 folders.

Deliverables:
1. A screen shot of your directories

Step by Step Instructions:
- Make an ENGR112 folder (finder->new folder or Windows explorer->new folder)
- Put a lab and a homework folder in that new folder
- Put a lab0 and a lab1 folder in the lab folder
- Take a screenshot of the directories
  - Windows:
  - Mac:
- Paste the screenshot image into the space below

Self-check: You should have a screenshot similar to the one in the upper left in the figure below

Grading Criteria:
[5 pts] [Creating directories]
[5 pts] [Screen shot of created directories]

Screenshot here:
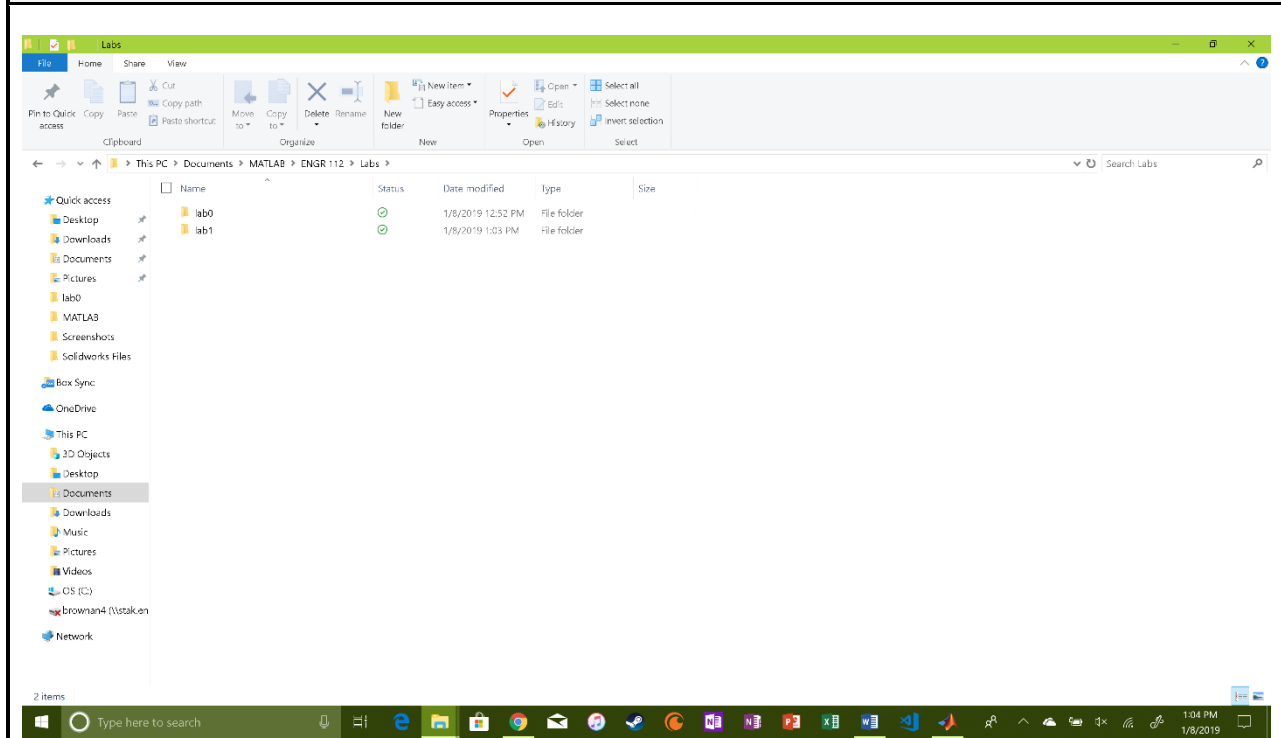
Problem 2
Download the example script, edit it to include your name, the lab number (0), and comments. Run the script then copy the results into the boxes below (script, plot, command window output).

Deliverables:
2. Edited script
3. Plot image
4. Command window output

Step by Step Instructions:
- Copy/move the script myFirstLab.m from Downloads to your lab0 directory
- Double click on the script; this should open up matlab
    - Note: You can also start matlab and then use the window in the left to navigate to the directories you made in the first problem
    - Click on the script in the navigation window
- The script should come up in the editor (window that says "editor" in the upper left).
- Click the green triangle (run) to run the script.
- Edit the script by putting your name, which lab this is, and filling in the comment
- **Copy and paste the script** from the editor into the Answer script here: box below
    - Note: select all of the text, do a copy, then do a paste, do NOT take a picture of the text.
- Go to the command window (the other window, says "matlab" on the top, middle window should be the command window). **Copy and paste the output** from there to the Command Window Output box below.
- **Copy the figure image into the Plot here box below**
    - Two ways to do this; you can either do a screen grab of the figure OR go to file-save as on the figure window and save it to the folder. You can then insert it here using insert->picture->picture from file.

Self-check:
Plot:
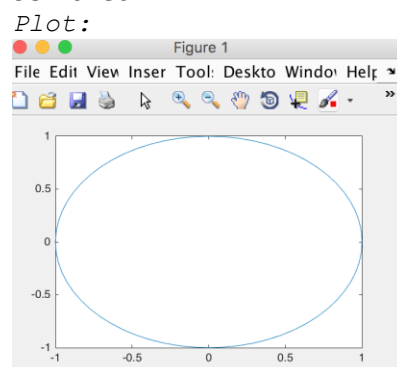
Command window output:
I made a circle!
>>

Grading Criteria:
[## pts] [5 pts adding name]
[## pts] [5 pts comment]
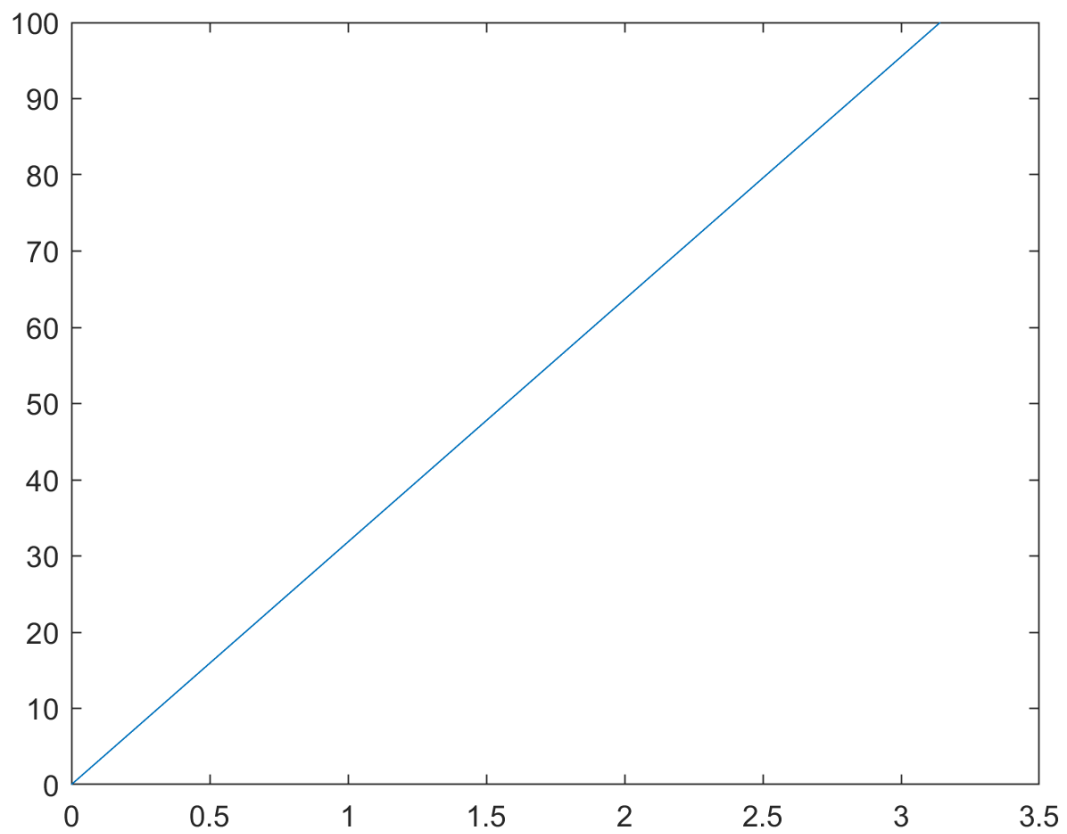[## pts] [5 pts copying script in]
[## pts] [5 pts copying plot in]
[## pts] [5 pts copying command window output in]

Answer script here:

```matlab
%Lab 0 Andrew Brown
clear
clc
% I am practicing making plots and printing.
%asigning variable
xs=linspace(0,pi);
ys=linspace(0,100);
plot(xs,ys)
%practicing printing strings
fprintf('I made a line!\n')
```

Plot here:

Command window output

```
I made a line!
>>
```

Problem 3
Upload a pdf of this file to Gradescope and a zip of your scripts to canvas

Deliverables:
5. PDF uploaded to gradescope
6. Canvas upload of JUST matlab files

Step by Step Instructions:
- Go to the top of this word document and fill in the information if you haven't already
- Save this file
- Go to file->save as, pick pdf from the list and save. Should create a **ENGR112 Lab0 Getting started.pdf** file in the lab directory
  - Make sure this Word file, and the pdf, are in your lab0 directory
  - Tutorial: https://support.office.com/en-us/article/Save-or-convert-to-PDF-d85416c5-7d77-4fd6-a216-6f4bf7c7c110
- **Go to Gradescope** (www.gradescope.com) and upload your pdf to Lab 0
  - Upload the pdf then, for each problem, select the pages where your ANSWERS are. Click on the problem, then click on the 1 (or more) pages with your answers (starting with Grading Criteria).
    - See instructions at end of this document OR
    - Tutorial (page 3): http://gradescope-static-assets.s3-us-west-2.amazonaws.com/help/submitting_hw_guide.pdf
    - Video for assigning problem numbers: https://youtu.be/KMPoby5g_nE
  - Note: If you don't select the pages then they won't show up when the TA grades them.
- **Upload a zip file of all of the .m files (your scripts) to Canvas**
  - Open up the Lab0 folder in the finder
    - Do the instructions below by selecting myFirstLab.m
    - Note: In future labs you will have more than one file; use shift-select to pick multiple files
    - You do NOT need to include anything but the .m files
  - You must zip **all** your script files into 1 script file named "scripts.zip"
    - For Windows, see the pictures below.
    - For Macs, select the files, right-click, and hit "Compress"
      - By default the zip file name is Archive.zip; that's fine, you can use that instead of scripts.zip
  - Turn the zip file in to **Canvas**.
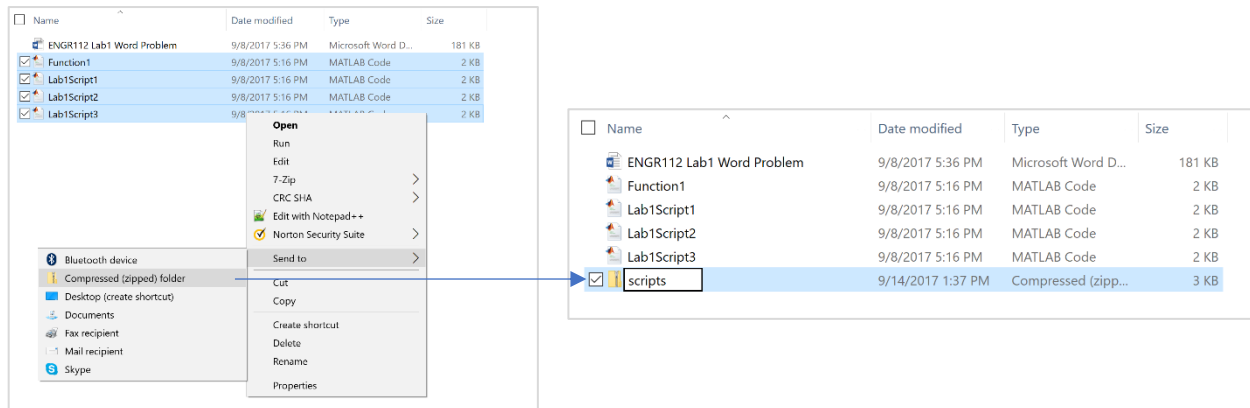
Self-check: *Check that you have submitted lab0 to lab0 on canvas and same on Gradescope*

Grading Criteria:
[5 pts] [cover sheet filled out (first page of this file)]
[5 pts] [Gradescope pdf uploaded]
[5 pts] [Problems correctly selected in Gradescope]
[5 pts] [Zip file correctly made]
[5 pts] [Zip file uploaded to Canvas]

zyBooks Challenge Exercises

Do the challenge activities for the following in Week 1
1. This is just a list of the challenge exercises for each week; you may do them at any time.

Grade scope assignments look like this: Click on the homework you wish to submit

Chose submit PDF
Select the PDF to upload. Once you do, you'll see both the assignment outline and your uploaded PDF:

IMPORTANT: You must tag your pages with the outline.
1. Click on the question in the outline (eg, Cover sheet)
2. Click on the (one or more) page that belong to that question; should look like this (see big checkmark)
   a. Remember to start at the first page that has your code/hand-in for that problem
3. Repeat for all problems