Jonathan Hess

Section 3.2

## Week 4 Lab Report: Title

# Lab Report Rubric

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| --- | --- | --- |
| **Category** | **Student Score** | **Grader Score** |
| **Organization** | | |
| **Appropriate sections** | **1/1** | **/1** |
| **Appearance and formatting** | **2/2** | **/2** |
| **Spelling, grammar, sentence structure** | **1/1** | **/1** |
| **Work** | | |
| **Experimental procedure** | **1/2** | **/2** |
| **Results (data, code, figure, graph, tables, etc.)** | **2/2** | **/2** |
| **Conclusion** | **1.5/2** | **/2** |
|  |  |  |
| **Total** | **9.5/10** | **/10** |

# Introduction

This week we were messing around with MatLab. We made programs and built functions to help us. It was a lot of learning syntax and troubleshooting errors.

# Procedure

In this section you will explain your approach of working through different problems/questions/tasks you attempted during the lab.

## State the Task/Problem/Question Attempted

## Procedure

E**xplain in detail** what you did to find the answer to your question. The reader should be able to follow your procedure and repeat exactly what you did.

* *Installed Matlab*
* *Ran the trial codes in the command line*
* *Made a new file*
* *Ran code from file*
* *Created different sections*
* *Ran as section*
* *Created own code in new file*

# Results

## Results

My group worked together through the basic code. We stumbled through some errors with the adding of text in the disp function. We had it so it said disp(‘text 1’ +’text2’) a space between the plus and the single quotation mark is required.

The code I made is presented below:

% Jonathan Hess's Code Lab 3

%geometry

%%

a = input("how many sides: ");

disp("Total Angle: " + (a-2)\*180);

disp("Degrees per angle " + (a-2)\*180/a);

disp("DI " + (a\*(a-3))/2);

%%

%cross product

a = input("input vector as array");

b = input("input vector as array");

i = a(2)\*b(3) - a(3)\*b(2);

j = (a(3)\*b(1) - a(1)\*b(3));

k = (a(1)\*b(2) - a(2)\*b(1));

disp("i" + i);

disp("j" + j);

disp("k" + k);

The code above has two sections that I plan on adding to later. The first section is a polygon calculator; it calculates properties of the polygon. The next code calculates the cross product of two vectors. MatLab is different from C++ and Java because it requires that use ‘)’ for getting values of an array. You still set up the array with the ‘]’ though.

The section feature is very useful and seems similar to functions. I think in the future I will use functions because I can call them from the command line without using sections.

# Conclusions and Reflection

MatLab is similar to normal programming but has a few differences in notation and declaration. Many of the skills I have from programming seem to be able to translate well to MatLab. On my own time I am going to mess around with different combinations and find what other tricks matlab has special about it.

## ***Include the questions, or ideas you had or areas where you got stuck and want to think more about. Discuss these with your lab mentors or teammates or others in the lab. Maybe some others might have the same kind of questions…***