CS 105 – Introduction to Scientific Computing

Assignment 1 – Matlab as a Calculator/Scratchpad

Objectives

After completing this assignment you should be able to:

1. Have Matlab running
2. Do a proper assignment submission to Canvas (see *Submission* area below)
3. Do basic computations in the Matlab Command Window
4. Use the default *ans* variable for later computations

Overview

One use of Matlab is as a very sophisticated calculator. You may find yourself opening it up often to do quick computations, whether sophisticated ones or basic ones.

In this assignment you will practice typing equations into the command line and reporting the output.

Part I

Type the following commands into the command line:

```
1. 4+5
2. 4+5.0
3. -4*i
4. 6+k
5. 2^3+8
6. 6 + 'hello'
7. (3+4)(4-8)
8. 4/0
```

In your report, state the output for each. If you get an error message (or an unexpected output), report what it says and explain why you suspect this has happened.

Part II

Evaluate the following expressions in Matlab. You will need to re-write them to use valid Matlab arithmetic operations

9. $\dfrac{\frac{4}{3}}{}$

10. $5\dfrac{7}{12} + 7$

11. $3^4 - 5$

In your report, state the output of each as well as how you wrote them it Matlab so that they would compute.

Submission

Your submission should include a single PDF document inside of a *zip* file (you will submit the zip file).

This document will report your findings for each part. You may include screenshots in the document if you like.

This report should also state things like:

1. What you did
2. How you did it
3. Any additional things you tried or discoveries you made