

Project 6: Enter and Leave Conventions for Central Stack

Instructions: Follow lab instructions below and complete the following:

1. **Create a lab report and submit/upload via canvas as a .pdf . See Lab Report Specs document for formatting details.**
2. **Commit code to your personal branch as instructed**

Key

- Methods / Procedures: are enumerated.
- Questions: are italicized and generally ask you to share your observations and conclusions.
- Commit instructions: Code to commit to your branch are underlined.

Objectives: Implement recursive subroutine using centralized stack.

For this project you will implement a recursive multiplication subroutine in LC3 assuming a centralized stack.

```
; mult(x, y, ... )  computes x * y
;
; Assumes x, y are non-neg int
; Assumes centralized stack: Enter and Leave Convs
```

Requirements.

1. OS immediately calls subroutine *test*.
 - a. *Test* subroutine is a very simple subroutine that initializes x and y and calls the mult subroutine.
 - b. *Test* then prints the result of the multiplication using one of the PennSim displays.
2. Mult subroutine recursively computes $x * y$.
 - a. Enter and Leave conventions should be similar to those discussed in class.
 - b. When complete mult should “return” the correct result.