

CIS 212: Project #3B

Assigned: "Saturday November 3<sup>rd</sup>", 2018 (I got it out on Nov 1<sup>st</sup>, though)

Due Wednesday, November 14<sup>th</sup>, 2018

(which means submitted by 6am on November 15th, 2018)

Worth 5% of your grade

Please read this entire prompt!

Assignment: You will build off your work from project 2E. You will also implement a stack for integers. You will then take the command line arguments (argc/argv) and parse them. If it is a character string of a number, then use your previous routine to convert a character string to a number. Otherwise, the only three values for the strings can be "+", "-", or "x". The "x" is multiplication. (It could not be "\*" since that would interact with the shell's support for wildcards.)

As you encounter numbers, you will push them on the stack.

As you encounter math operations, you will perform the operations.

You will do this via Reverse Polish Notation. (Google has more info.)

This website is particularly helpful for translating this to programming concepts:

<http://www-stone.ch.cam.ac.uk/documentation/rrf/rpn.html>

Note that minus is special, in that the A-B does not equal B-A. You will need to make sure you pop integers from the stack to put them in the right order.

There is no starter code. Rename your proj2E.c file to be proj3B.c and go from there.

== Success ==

Before you submit, make sure to test your code using the provided grader program script (check\_3B) on the Virtual Box.

Upload your new file, proj3B.c