

CSE 334 Microprocessors Spring 2016

Assignment 1

Due date March 15, Tuesday 17:00 (No late submissions)

Write an assembly program that implements a calculator. Your program will perform addition and subtraction of up to 6 digit decimal numbers. The numbers and the operator will be taken as a string and the result will be stored as a string showing the decimal result.

The string is located starting at address \$1500. The resultant string will be stored to \$1600. Do not forget NULL termination. The initial string will be loaded to \$1500 by FCC directive.

For instance,

If the string at \$1500 is

“237 + 48”

then the result will be

“285” starting at location \$1600.

If the string at \$1500 is

“421382 - 12000”

then the result will be

“409382” starting at \$1600.

Comment each line of code properly for full credit.

BONUS

1. Ability to perform multiplication and division (+20 points)
2. Ability to support operations with negative integers. (+15 points)
3. Proper use of subroutines (+15 points)
4. Ability to support floating point numbers (+20 points)

Assembly code that does not build or execute will get at most 20 points whether the error is small or big.

Cheating will result in -100 for both sides. Any help or cooperation is forbidden. Do on your own!