**CSCI 4335 Computer Architecture**

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**Assignment 4 - Problems**

We learned that based on the architecture we can have 3 or more operand instructions, 2 operand instructions, 1 operand instructions (and 0 operand instructions). This assignment is for you to write assembly code for the following problem using each of the architecture. Do not forget operator precedence and associativity of operations. Some stack operations don’t require operands (0 operand) others will need one operand. Assume all input variables are stored in RAM already. Please identify the type of architecture and how many operands are used. Each assembly line should follow with a comment like this (comment starts with a semicolon): **SUB R3,R2 ;R3 🡨 R3-R2.**

G = (A+B\*C)/(D-E\*F)

MUL R1, B, C ; R1 <- mem B \* mem C

ADD R2, A, R1 ; R2 <- mem A + mem R1

MUL R1, E, F ; R1 <- mem E \* mem F

SUB R3, D, R1 ; R3 <- mem D – mem R1

DIV G, R2, R3 ; G <- mem R2 / mem R3