

Computer Architecture, Assignment #1

DUE Monday, FEB 29th.

Write a MIPS assembly language program that will compute $Y = M * X + B$.

The program should prompt the user to enter values for M, X, B and then display the result. Once the result is displayed, the user should be asked if they want to do another computation: An example is given below:

```
Enter X:    3
Enter M:   -1
Enter B:    2
```

```
Answer is:  -1
```

```
Continue? (Y/N):  N
```

Your code needs to use a subroutine to compute $M*X+B$ with M,X,B passed in the appropriate argument registers and the result returned in a value register. You do not have to create a stack frame. You should use 32-bit precision in your computations and the computations should use signed numbers.

- a. What happens if overflow occurs during the addition? Give an example where this happens.