# Exam 2 Review

Note: there may be questions on the exam that are not listed in this outline but were covered in class.

## Conditional Processing

* Know the *test* and *cmp* instructions as well as the jump instructions that we’ve used.
* Know the 4 basic control-flow structures that were discussed and how to implement them in assembly language

## Integer Arithmetic

* Know the shift and rotate instructions
  + Which flag(s) in used or affected by it
  + Be able to show the result of a shift or rotate
* Know which registers are affected by *Mul* and *DIV*.
* Know the commands used to prepare the registers for a division operation
* Given a high-level math expression, be able to properly implement it in assemble.
  + Maintain operator precedence

## Procedures

* Understand how information is passed to and returned from procedures
* Be able to able to allocate a “local variable” in the stack
* Know common stack operations, requirements of stack instructions.
* Be able to implement a procedure (if algorithm or high-level code is provided).
* Know the conventions concerning the preservation of register values in the context of procedure calling.