

**Problem EX-1 (3 parts)****MIPS Assembly Expressions**

**Part A** Suppose A is stored in memory location 1020 and B is stored in register \$1. Write a MIPS program fragment that computes “ $(25A - B)/16$ ” and stores the result at memory location 1024. Feel free to use additional registers, but use a minimum number of instructions and registers.

Label	Instruction	Comment

**Part B:** Write a code fragment that packs four unsigned eight bit values **A**, **B**, **C**, and **D** (stored in \$1, \$2, \$3, and \$4) in order into a single 32 bit word stored in \$1. When complete, value **A** should be stored in the least significant byte, while value **D** is stored in the most significant byte. Use only \$1, \$2, \$3, \$4, all of which can be modified.

label	instruction	comment

**Part C:** Write MIPS code that implements the expression:  $Y = Y / -144$ ; Assume **Y** is in \$5. Use additional registers as needed.

Label	Instruction	Comment