CS4121 Homework Assignment #3
Due Date: Wednesday, March 27 at *9:05am*

1. (5 points) Problem 6.5, page 280.

2. (5 points) Problem 6.12, page 281.

3. (7 points) Problem 6.13, page 281.

4. (7 points) Problem 6.24, page 283.

5. (12 pts.) Generate Mips assembly for the `do-while` loop below based on whether the language supports short-circuit evaluation or not. You can assume that `a` is stored in stack with offset -8. You can use Mips comments ♯ `loop body` and ♯ `after loop` to denote the code segments for the loop body and the code following the loop, respectively.

   (a) The language uses short-circuit evaluation.

   (b) The language does not support short-circuit evaluation.

   ```
   do {
     \\loop body
   } while ((a>-20) && ((a<-10) || (a>20)))
   \\ after loop
   ```

6. (8 points) Generate Mips code for the following C switch statement using jump table. Assume that *a* is stored in stack with offset -4.

   ```
   switch(a) {
     case 200: foo1();
     case 201: foo2();
               break;
     case 203:
     case 204: foo3();
               break;
     default:  foo4();
   }
   ```