CMSC330 Fall 2011 Example Quiz #1 Solutions

1. (4 pts) Describe a benefit of using implicit declarations in Ruby.

   Reduce programming effort.

2. (12 pts) What is the output (if any) of the following Ruby programs? Write FAIL if code does not execute.

   a. (3 pts)
   ```
   puts "Win" if 1 < 0                 # Output =   The Future
   puts "The" if 0 < 1
   if 0 then
       puts "Future"
   end
   ```

   b. (3 pts)
   ```
   a = [5,"foo", 2.1]                  # Output =   Found foo
   puts "Found #{x[1]}"
   ```

   c. (3 pts)
   ```
   a = { }                             # Output =   nil
   a["foo"] = 2
   puts a[1]
   ```

   d. (3 pts)
   ```
   a = [ ]                             # Output =   nil
   a[2] = 5                                         nil
   a.each { |x| puts x }                            5
   ```

3. (14 pts) Given an array of strings *x*, write a Ruby method printRepeats(*x*) using Hash and code blocks to print out all strings in S followed by the number of occurrences, with each string on a separate line.

   ```
   def printRepeats(x)
       counts = { }
       x.each { |a|
           if counts[a] == nil
               counts[a] = 1
           else
               counts[a] = counts[a] + 1
           end
       }
       counts.keys.sort.each { |b| puts "#{b} #{counts[b]}" }
   end
   ```