

## 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
puts "The" if 0 < 1
if 0 then
  puts "Future"
end
```

# Output = **The  
Future**

- b. (3 pts)

```
a = [5,"foo", 2.1]
puts "Found #{a[1]}"
```

# Output = **Found foo**

- c. (3 pts)

```
a = { }
a["foo"] = 2
puts a[1]
```

# Output = **nil**

- d. (3 pts)

```
a = [ ]
a[2] = 5
a.each { |x| puts x }
```

# Output = **nil  
nil  
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
```