

CMSC330 Fall 2011 Quiz #1 Solutions

1. (4 pts) Explain why languages like Java do not use implicit declarations.

Because errors (such as misspelled identifiers) will not be caught at compile time.

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

- a. (4 pts)

```
a = [ ]  
a["foo"] = 5  
puts a[5]
```

Output = Fail

- b. (4 pts)

```
a = { }  
a["bar"] = 4  
puts "Found #{ a["bar"] }"
```

Output = Found 4

- c. (4 pts)

```
a = [ ]  
a[3] = "Terp"  
a.each { |x| puts x if x }
```

Output = Terp

3. (14 pts) Given an array of strings x , write a Ruby method `printWords(x)` using Hash and code blocks to go through the array elements in order, printing out all strings in x the first time they are encountered, with each string on a separate line. In other words, print out all strings in x if the string has not been printed already.

Answer:

```
def printWords( x )  
  counts = { }  
  x.each { |a|  
    if counts[a] == nil  
      puts a  
      counts[a] = 1  
    end  
  }  
end
```