CMSC330 Fall 2013 Quiz #1

Name _____

Discussion Time	**9am**	**10am**	**11am**	**Noon**	**1pm**
TA Name (circle):	**Ilse**	**Daniel**	**Casey**	**Yoav**	**Ilse**
	Richard	**Richard**	**Richard**		

Instructions

- Do not start this test until you are told to do so!
- You have 15 minutes for this quiz.
- This is a closed book exam. No notes or other aids are allowed.
- Answer essay questions concisely in 2-3 sentences. Longer answers are not needed.
- For partial credit, show all of your work and clearly indicate your answers.
- Write neatly. Credit cannot be given for illegible answers.

1. (6 pts) What is the output (if any) of the following Ruby programs? Write FAIL if code does not execute.

   a. (2 pts)

```
a = "maryland terps"                    # Output =
if (a =~ /y+land$/)
   puts "Found one #{$1}"
else
   puts "Missed"
end
```

   b. (2 pts)

```
b = { "John" => 10, "Mary" => 20}       # Output =
puts b[10]
puts b["Mary"]
```

   c. (2 pts)

```
a = -1                                  # Output =
b = 1
c = a + b
if c
   puts "#{a} #{b}"
else
   puts c
end
```

2. (8 pts) Write a Ruby method ***get_tag*** that given a string *str*, uses regular expressions and back references to find and return a valid car tag. A valid car has has three lowercase characters, followed by dash (-), followed by three digits. For instance, get_tag("this is a tag akm-432 we use") should return “akm-432”. The method will return “NoTag” if there are no tags in the input string.

   def get_tag(str)

3. (6 pts) Write a Ruby method ***square*** that given an array of integers *int_values*, uses the Array.each method and a code block to print each array value and its square. For instance, given the array [3, 2, 6, 1], your code should print out the following:

   3 9
   2 4
   6 36
   1 1

Some helpful functions (not all need to be used)	
a.each { … }	// apply code block to each element in array
puts b	// print b followed by a newline
c.to_s	// returns string for c

   def square(int_values)