

CMSC 330 Spring 2017 Quiz #1

Name (as it appears on gradescope) _____

Discussion Time (circle one)

10am 11am 12pm 1pm 2pm 3pm

Discussion TA (circle one)

Aaron Alex Austin Ayman Daniel Eric
Greg Jake JT Sam Tal Tim Vitung

Instructions

- Do not start this quiz until you are told to do so.
- You have 15 minutes for this quiz.
- This is a closed book quiz. No notes or other aids are allowed.
- For partial credit, show all of your work and clearly indicate your answers.

1. (2 point each) True or False – Circle whether each statement is True or False

- T F 0, nil and false are all treated as false in Ruby
T F Ruby has static type checking
T F Variables in Ruby are implicitly declared
T F Ruby requires a main method to execute code
T F The @ prefix creates global class variables

2. (2 points each) Ruby Execution – Write the expected output of the code snippets below, if there would be an error, write FAIL.

a. `a = [5,4,3,2,1]`
`a.sort`
`a.select! { |x| x % 2 == 0 }`
`puts a`

Output:

b. `h = Hash.new(0)`
`h["330"] = 3`
`h["351"] = 3`
`a = ["132", 7, "330", "351"]`

Output:

```
a.each {|e|  
  puts h[a]  
}
```

3. (6 points) Define a method `frequency` that given an array, prints the number of occurrences of each element in the array on separate lines. The return value of the method can be anything.

Example

```
irb(main):01:0> frequency [4,3,2,3,4]
```

```
4: 2
```

```
3: 2
```

```
2: 1
```

```
=> nil
```