**CS108L Computer Science for All**

**Module 6 Do Now Questions**

1. For which of the following variables would you use a global variable?

Turtle color

Average turtle age

ID of the turtle nearest to me

1. Turtle color
2. The computed average age of all turtles
3. ID of the turtle nearest me
4. None of the above, they are all turtle variables
5. What is the value of the variable myCount after the setup procedure runs?

to setup

let myCount 0

ask patches

[

set myCount (random 100)  
 if myCount < 50

[

set pcolor red

set myCount myCount + 1

]

]

end

1. 101
2. 100
3. It depends on how many patches there are
4. A random number between 1 and 99
5. In the following piece of code, the programmer intended on keeping track of the total number of steps all of the turtles have taken in the variable totalSteps. What is the error in the following code segment?

Turtles-own [energy]

Globals [totalSteps]

to go-one-time

set totalSteps 0

Ask turtles

[

forward 1

set energy energy - .05

set totalSteps totalSteps + 1

]

end

1. All of turtles are only updating their local turtle counts
2. The global totalSteps is not being updated by turtles
3. There is no error
4. totalSteps should start at 1 not 0
5. In the following piece of code, the programmer intended that each turtle would keep track of its energy. What is the error in the following code segment?

turtles-own [energy]

to go-one-time

set energy 100

Ask turtles

[

forward 1

set energy energy - .05

]

end

1. A turtle’s energy cannot be set outside of Ask turtles [ ]
2. A turtle’s energy is never being updated
3. There is no error
4. A turtle’s energy should start at 0 not 100.

1. The programmer wants to name his turtle Henry and let everyone know what its name is! What is wrong with the following program? (Note: label is a built-in turtle or link variable. It may hold a value of any type. The turtle creates a label for the turtle that is whatever the label variable value is.)

to setup

clear-all

create-turtles 1 [

let temp “Henry”

set label temp

]

end

to go

ask turtles [

forward 1

show temp

]

end

1. A turtle appears but no label text is visible
2. You get a syntax error because temp is not a variable in the go procedure
3. Error because Go tries to show a variable that is not defined
4. A turtle named John moves forward 1 and “John” appears in the command window.