

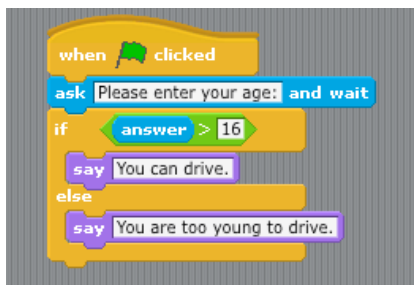
CSC 115 Test #2:

Name:

Student ID:

After answering each question, **email your answers to me by 11:30 AM, today** (Thursday, May 4, 2017) at the class email address. During the test, if there are any questions, please send email and I will respond as quickly as possible. Finally, please be sure to **Do all 8 questions!**

- (15) How is assignment performed in Scratch? What is a conditional? How is a loop constructed that runs an unknown number of times (prior to the program executing)?
- (25) What does the following program print out when the following program is run and 20 is entered? What if "twenty" is entered?

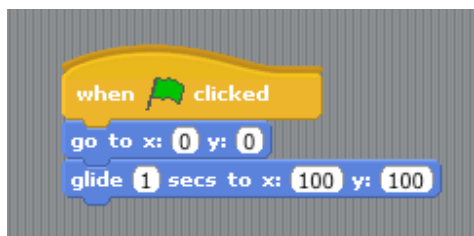


```

when green flag clicked
ask Please enter your age: and wait
if answer > 16
say You can drive.
else
say You are too young to drive.
    
```

- (25) Write a **pseudo code** program to list the numbers 1 - 100 and their square roots.

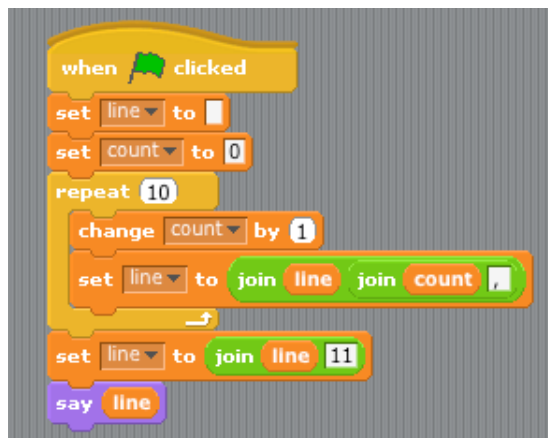
- (25) Given that the following program has a blue circle that is a sprite, what does the following program print out when the green flag is clicked?



```

when green flag clicked
go to x: 0 y: 0
glide 1 secs to x: 100 y: 100
    
```

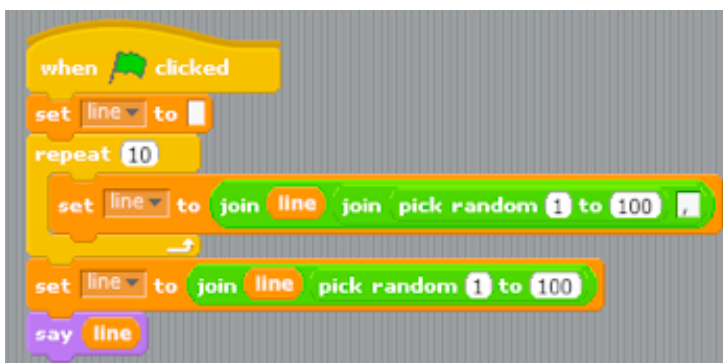
- (25) What does the following program print out when the green flag is clicked?



```

when green flag clicked
set line to
set count to 0
repeat 10
change count by 1
set line to join line join count
set line to join line 11
say line
    
```

- (25) Provide Possible output when the following is run:



```

when green flag clicked
set line to
repeat 10
set line to join line join pick random 1 to 100
set line to join line pick random 1 to 100
say line
    
```

- (30) Using Scratch widgets that were used in other programs on this page, as a guide, simulate flipping two coins 100 times in Scratch, i.e. provide a Scratch program that flips two coins 100 times.

- (30) Your new gasoline powered automobile gets 30 MPG at 40 MPH and 25 MPG at 65 MPH; after filling your tank full, with ten gallons of fuel, you drive your car for 72 miles at 65 MPH and then for another 90 minutes at 40 MPH. Based on the information provided, how much time did your trip take? How many gallons of gas were used? How many miles were driven? Be sure to answer all parts of this question and show your work!