Quiz 4

Name: _____

Question 1 Consider the following program and answer the questions below.

```python
1  def snip(lst, limit):
2    print ("in snip")
3    count = 0
4    for i in range(len(lst)):
5      # answer scope question here
6      if lst[i] < limit:
7        count = count + 1
8        lst[i] = limit
9
10   # draw stack here, before return
11   return count
12
13 def main():
14   print ("in main")
15   numbers = [-4, 257, 130, 302]
16   value = 150
17   num = snip(numbers, value)
18   print ("num = %d" % (num))
19   print (numbers)
20
21 main()
```

(a) Which variables are in scope on line 5?

(b) Draw a stack diagram of the program when it reaches line 10.

(c) What is the complete output of the program?

Question 2 In this question you will write two functions following the specifications below.

(a) The function `getIntegerBetween` has two parameters, `low` and `hi`. The function should prompt the user to enter an integer whose value is between `low` and `hi` inclusive, and then return the valid integer. Your function should not return until the user enters a valid integer between `low` and `hi`.

(b) The `main` function uses the `getIntegerBetween` function to read an integer between 1 and 100. You should save that value to a variable called `step`. Next, `main` should print out the value of `step`. Finally, `main` should print out all of the integers between 1 and 100 counting by `step`.