1) while Loops

a. What is the output of the statements below?

```python
for cnt in range(8):
    result += 2
print(result)
```

b. The for loop in the above example can be re-written as a while loop. Re-write the loop.

```python
mynum = 3
for i in range(1, 15, mynum):
    mynum += i
print(mynum)
```
d. Rewrite the above for loop as a while loop.

e. What if we wanted i in the program in example 3 to increase by the increasing value of mynum? Which loop should be used for this? Why?

f. Re-write the program with the appropriate loop.

```python
g. What is the output of the following code?

```num1 = 4
num2 = 2
while num1 > 0:
    num2 *= 2
    num1 -= 1
    num2 *= 2
    num1 -= 1
    num2 *= 2
    num1 -= 1
print("num1 =", num1, "num2 =", num2)```
2) Create a function called `howManyUntil(stopNum)` where stopNum is an integer from 0 and 99

The function will randomly generate a number from 0 and 99 and keep generating random numbers until the number stopNum is generated. The function will return the number of random numbers that were generated in order to get the stopNum.

Example: If stopNum = 50 and the random numbers generated were 0, 4, 19, 50, then the function would return 4.

3) Write a function, `listSumBelow`, that takes a list of integers argument and an integer argument. The function should sum up the numbers in the list in order from the last item to the first item until the sum is greater than the integer argument. It should then return a list of those numbers used to create the sum. The original list should not be modified.
4) while loop practice

An event coordinator wants to create a program that will create a random group of event participants so that the average age of the group is between 10 and 20. The group should also have at least two people in it. The event coordinator has the attendees in the form of a list of tuples, like so:

```python
attendees = [("Jack", 14), ("Lily", 19),
             ("Manish", 8), ("Alisa", 40),
             ("Ava", 6), ("Damaris", 35),
             ("Charles", 50), ("Nicolas", 9)]
```

a. Using computational thinking write an algorithm for this task.

b. What is the appropriate type of loop to use for this task? Why?

c. Write the program described above. Use a function to create the group. The function should take a list of attendees similar to above as an argument and return a list of the group members.