Scripting exercise for Exam 1:

1. Consider the following list:

   mylist = ["Athens", "Barcelona", "Cairo", "Florence", "Helsinki"]

   Determine the results of the following:

   These following operations are all to be performed on the original list — that is, not as a sequence of operations. Try to determine the answer manually first, and then check your result by running the code.

   a) len(mylist)

   b) mylist[2]

   c) mylist[1:]

   d) mylist[-1]

   e) mylist.index("Cairo")

   f) mylist.pop(1)

   g) mylist.sort(reverse = True)

   h) mylist.append("Berlin")

2. Create a script that finds second largest number in the list (e.g. myList = [2,5,7,23,53,11,4,6,20])

3. Create a script that asks for a number then print the absolute value of that number

4. Create a script that asks for a number then prints if it is even or odd number
   (hint: use % to evaluate)

5. Create a script that prints the average value of user inputs of numbers. In your script you can ask users how many numbers will be entered and print the average of entered numbers.
   Sample runs:
   ```
   This program will take several numbers, then average them.
   How many numbers would you like to sum:  3
   Enter a number:  1
   Enter a number:  4
   Enter a number:  3
   The average was: 2.67
   ```

6. Create a script that prints the average that continuously updates as new numbers are entered. Sample runs:

```
Welcome to the Average Calculator, please insert a number
New number: 1
The current average is 1.0
New number: 3
The current average is 2.0
New number: 6
The current average is 3.333
New number: 6
The current average is 4.0
```

7. Create a script that calculates a factorial of numbers. (E.g. 5! = 5*4*3*2*1 = 120)

   Sample runs:
```
Enter your number: 5
Factorial of 5 is 120
```

8. Here's Beatles member's name: John Lennon, Paul McCartney, Ringo Starr, and George Harrison. Write a python code* that uses loop to print a message like the following format:

```
First Beatles member name is _____,
Second Beatles member name is _____,
Third Beatles member name is _____,
Fourth Beatles member name is _____.
```

   * Evaluation point here is to create shortest possible code.

9. Write a script that randomly create integer number (0 to 100), then reports the letter grade for that number as following format:

   ```
   Your score is (your random number here) and your letter grade is (your letter
   grade here).
   ```

   * Assign letter grades as follows: A: 90-100, B: 80-89, C: 70-79, D: 60-69, F: <60