Make sure you have the tutorial open when answering the following questions. All of the questions in this module use the Python Tutorial at:

* <http://www.letslearnpython.com/learn/>

Note: You should use the black area of Repl to try the simple Python expressions listed in the questions below.

**Lesson 8: Lists – A Collection of Objects**

1. What is a list in Python? Explain in words and provide an example.

(A list is a collection of things like a list of chores.)

1. Create a list of your favorite sports teams.
   1. Assign your list to a variable. Called “myTeams”

myTeams = ["raptors", "blue jays", "tempo"]

* 1. Use the command print(myTeams) to confirm that your variable and your list are the same.

(print(myTeams)

['raptors', 'blue jays', 'tempo']

1. Add a team to your list using “+”.
   1. Verify that + can be used to add two lists

(+ cannot add two list.)

* 1. Write you Python code below

myTeams = ["raptors", "blue jays", "tempo"]

 myTeam = ["yankees", "warriors", "lakers"]

 print(myTeams)+(myTeam)

1. Create a list containing your favorite colour, your favorite number, and the name of someone you know. Show how to write this list in Python code below.

["blue", 20, "greg"]

1. Do Python lists have to contain elements that are all the same data type? Answer True / False. (False)

**Lesson 8: Lists – List Indexes**

1. What is the value of myTeams[0]? (Assuming that you have created a list of your favorite sports teams in the previous questions.)

myTeams = ["raptors", "blue jays", "tempo"]

 myTeams[0]

'raptors'

1. What is the list index of the last team in your list of favorite sports teams? Provide the Python code below.

myTeams = ["raptors", "blue jays", "tempo"]

 myTeams[2]

'tempo

1. Compare Python lists to Python strings. (Both list and strings can use letters and numbers.

* 1. How are lists and strings similar? (They can use letters and numbers.)
  2. How are they different? (Strings can add together but list can not.)

1. In the tutorial, why does typing “fruit[3]” produce an error? (They error is caused because there was not an index 3. Index does start at 1 it starts at 0, there fore index 3 never existed in the first place.

**Lesson 10: Loops – Counted Loops**

1. Use a counted loop to print out your list of favorite sports teams. Provide your code below.

for mynum in [1, 2, 3, 4, 5]:

... print("raptors", "blue jays", "yankees", mynum)

* 1. What is the function of “in”

(in means the numbers of integers.)

1. Compare Counted Loops to Conditional Loops.
   1. How are they similar? (They are similar because they keep on repeating until they reach the limit, or the condition is true.)
   2. How are they different? (They are different because counted loop stops when the number of integers is meant. Conditional loop stop when the condition is meant, that means you will not know when your condition will be meant.)