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 are amounts of values you set as a variable.

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

myTeams = ["Toronto Raptors ", "Houston Rockets ", "New York Knicks "]

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

print(myTeams)

1. Add a team to your list using “+”.
   1. Verify that + can be used to add two lists
   2. Write you Python code below

myTeams = ["Toronto Raptors ", "Houston Rockets ", "New York Knicks " + ", Atlanta Hawks"]

print(myTeams)

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.

myList = ["Red ", "7 ", " Mobeen" ]

print(myList)

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

The value would be Toronto Raptors because Python starts counting from zero.

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

The code would be :

print(myTeam[2])

1. Compare Python lists to Python strings.
   1. How are lists and strings similar?

Python strings and lists are similar because they both uses quotations.

* 1. How are they different?

They are different because strings have its own purpose and that is to print text. Lists are different from strings because lists are variables.

1. In the tutorial, why does typing “fruit[3]” produce an error?

There is an error because there is not a fourth fruit in the list. Since Python starts counting from zero it will give an error.

**Lesson 10: Loops – Counted Loops**

1. Use a counted loop to print out your list of favorite sports teams. Provide your code below.
   1. What is the function of “in”

The function of in is to tell Python which list to use/which list to run.

1. Compare Counted Loops to Conditional Loops.
   1. How are they similar?

They are similar because they both have loops.

* 1. How are they different?

They are different because counting loops repeat a certain number of lines and conditional loops repeats the line until a certain thing happens if the statement or code is true.