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 multiple strings, integers and floats contained in square brackets.S

1. Create a list of your favorite sports teams.
   1. Assign your list to a variable. Called “myTeams”
   2. Use the command print(myTeams) to confirm that your variable and your list are the same.

myTeams = ["Raptor”, ""Maple Leaf", "Toronto F"]

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 = ["Raptor”, ""Maple Leaf"] + ["Toronto F"]

print(myTeams)

["Raptor”, ""Maple Leaf"] + ["Toronto F"]

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.  
   favouriteList = [“Green”, 14, “Joe”]
2. 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.)

Raptor, Maple Leaf

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

Toronto F

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

Strings and lists can contain multiple characters and

* 1. How are they different?

Strings can hold only one data type while lists can hold multiple.

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

Because 3 is not defined

**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”

Counting loops repeat a certain number of times - they keep going until they get to the end of a list.

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

They are both able to repeat

* 1. How are they different?

Conditional loops are more useful while counted only uses lists