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 in Python is just a collection of things

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

myTeam = ["Raptors", "Blue Jays", "TorontoMapleLeafs"]

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

myTeam = ["Raptors", "Blue Jays", "TorontoMapleLeafs"]

print (myTeam)

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

Yes, it can be used.

* 1. Write you Python code below

myTeam = ["Raptors", "Blue Jays", "TorontoMapleLeafs" + " FCBarcelona"]

print (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.  
   myFavourite = (“Red”, “One”, “Dinesh”)
2. Do Python lists have to contain elements that are all the same data type? Answer True / **False**.

It is 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.)

Raptors

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

myTeam = ["Raptors", "Blue Jays", "TorontoMapleLeafs" + " FCBarcelona"]

The last index is 3

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

Just like strings and variables, each item in a list can be described with an index

* 1. How are they different?

An index is that item's position in the list.

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

We have only three items in the list. If Python starts counting at 0, then the only indexes (or *indices*) we have would be 0, 1, and 2. So there is no index 3 in our fruit list.

**Lesson 10: Loops – Counted Loops**

1. Usxist of favorite sports teams. Provide your code below.
   1. What is the function of “in”

Basically, it refers to the numbers in the list

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

They both repeat

* 1. How are they different?

*Counting* loops repeat a certain number of times

*Conditional* loops repeat until something happens