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.

It is a collection of things

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

myTeams = ["Raptors", "Ferrari", "McLaren"]

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

type (myTeams)

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

Yes it can be used

* 1. Write you Python code below

myTeams = ["Raptors", "Ferrari", "McLaren" + "Spurs"]

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 = (“Purple”, “Six”, “Katie”)
2. Do Python lists have to contain elements that are all the same data type? Answer True / False.

No

**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.

McLaren, 2

1. Compare Python lists to Python strings.
   1. How are lists and strings similar?
      1. They both involve words
   2. How are they different?
      1. Lists refers to a series of words whereas strings refer to one word.
2. In the tutorial, why does typing “fruit[3]” produce an error?

This occours because there is no fourth item in the list.

**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”
      1. It tells the system to use the numbers within the data.
2. Compare Counted Loops to Conditional Loops.
   1. How are they similar?
      1. They both repeatedly count upward or downward
   2. How are they different?
      1. Counting loops repeat a for a certain time whereas conditional loops keep going until a certain thing occurs (or as long as some condition is True).