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 a collection of things. Python knows this is a list because its wrapped in square brackets ex: ["pizza", "fries", 3, 2.5, "donuts"]

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

* myteams=["toronto raptors","maple leafs","boston celtics","lakers"]
  1. Use the command print(myTeams) to confirm that your variable and your list are the same.

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

* [“black”, “96”, “rubal”]

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.)

* Toronto raptors

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

myteams=["toronto raptors","maple leafs","boston celtics","lakers"]

myteams[3]

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

Their similar because python lists uses square brackets while python strings uses parenthesis

* 1. How are they different?

Lists can hold any type of data like integers, characters, strings and more while strings can only hold a set of characters

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

* Because there is no three python starts counting at 0

**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”
2. Compare Counted Loops to Conditional Loops.
   1. How are they similar? Both are loops and keep going until a certain time
   2. How are they different?

Counting loops repeat a certain number of times. While, Conditional loops keep going until a certain thing happens (or as long as some condition is True).