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 in square brackets.

["pizza", "fries", 3, 2.5, "donuts"]

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=["raptors", "blue jays", "leafs"]

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=["raptors", "blue jays", "leafs" + "LA clippers"]

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.
2. aboutMe=["black", 3, "Chris"]
3. print(aboutMe)
4. Do Python lists have to contain elements that are all the same data type? Answer True / False.

They could include words and integers.

**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.

myTeams=["raptors", "blue jays", "leafs"]

0 1 2

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

They both can include word data

* 1. How are they different?

Lists can include multiple words and numbers whereas strings can only include one.

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

Because although there are three fruits in the list, python starts counting at zero so it goes 0,1,2 making it so there isn’t a 3.

**Lesson 10: Loops – Counted Loops**

1. Use a counted loop to print out your list of favorite sports teams. Provide your code below.

myTeams=["raptors", "blue jays", "leafs"]

for x in myTeams:

print(x)

* 1. What is the function of “in”

To tell the program which list to loop.

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

They are both loops.

* 1. How are they different?

Counted loops loop lists and stop after they’re done, conditional loops keep going repeating a program unless ‘break’ .