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 what you think it is. It is a way to list things for one thing. For example if you want Apples, bananas and oranges together in one list all you have to do is fruit = [ “Apples”, “bananas”, “oranges”] and then you do a print command and tell it to print(fruit), it will list the 3 items.

1. Create a list of your favorite sports teams.
   1. Assign your list to a variable. Called “myTeams”
2. myTeams = ["raptors" , "bluejays" , "Argos"]
3. print(myTeams)
4. Add a team to your list using “+”.
5. myTeams = ["raptors" , "bluejays" , "Argos"] + ["Redsox"]
6. print(myTeams)
   1. Verify that + can be used to add two lists
7. myTeams = ["raptors" , "bluejays" , "Argos"] + ["Redsox", "Toronto fc"]
8. print(myTeams)

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.  
myFavourites = ["green", "4", "Vedant"]

print (myFavourites)

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.)

Since I have the raptors in first in the list 0 = raptors so it would display the raptors.

1. What is the list index of the last team in your list of favorite sports teams? Provide the Python code below.
2. Compare Python lists to Python strings.
   1. How are lists and strings similar?

They are similar because they both list the stuff you put in either quotes or Square brackets.

* 1. How are they different?

They are different since lists keep their brackets while with strings you don’t need brackets and lists can hole and type of data I.E: intergers, characters ECT. While strings only hold specific characters.

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

Since there phython starts counting at zero and the list contains only 3 characters there is no three because it only goes up to two.

**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”

The function is that in those few numbers it should print hello for each of them.

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

They both loop chunks of code that repeat a task over and over again.

* 1. How are they different?

Counting loops repeat a certain number of times while conditional loops, loop until something happens (or as long as some condition is true.)