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.

Lists are phrases that allow us to display words, numbers, etc. on the output screen as long as the phrase is in quotations.

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.

Command : myTeams = ()

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

Command: myTeams = ('Raptors, Lakers, Clippers ')

myTeams2 = ('Rockets')

print(myTeams + myTeams2)

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.  
   command:
2. favouriteColour = ('Blue ')
3. favouriteNumber = ('10 ')
4. NameSomeone = ('Josh ')
5. print(favouriteColour + favouriteNumber + NameSomeone)
6. Do Python lists have to contain elements that are all the same data type? Answer True / False.

True

**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.)

The value of myTeams 0 is raptors

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

The index of the last list is 2 which is named as clippers.

Command: myTeams0 = ('Raptors, Lakers, Clippers ')

print(myTeams0 )

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

They are both used as phrases to define a variable.

* 1. How are they different?

lists is that lists can any type **of** data i.e. integers, characters, **strings** etc, 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 such variable labeled as fruit.

**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. for myTeams0 in ['Raptors, Lakers, Clippers'] :
3. print( myTeams0)
4. Compare Counted Loops to Conditional Loops.
   1. How are they similar?

They are basically the same function to display on the output

* 1. How are they different?

**C*ounting* loops repeat a certain number of times - they keep going until they get to the end of a list. Whereas *Conditional* loops repeat until something happens (or as long as some condition is True).**