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 4: Strings – Strings and Lesson 4: Strings – Examples**

1. What is a string? Explain in words and provide an example.

* It is a programing, which talks about character, like letters, or symbols, or a bunch of characters that are been put together.

1. Explain why typing “apple” works and why typing apple without quotes gives an error.

* Typing apple in quotes works because to read strings in python the word has to be in quotes,
* The reason why the simple apple did not work because it must be in quotes.

1. Is there a difference between typing “apple” and ‘apple’. (i.e. is there a difference between using single or double quotes.

* There is no difference between putting single and double quotes. Because both of them are work as the same.

1. Explain why typing “apple’ gives an error.

* Typing “apple’ gives us error because the quotes are not properly put on, like one end is single and the other end is with double quotes. The correct format is either both of the quotes should be single or either double, it shouldn’t be like one is single and the second one is double.

1. Explain why “2 + 5” does not equal 7 and how it is different from typing 2 + 5.

* I think with quotes it did not work because we use quotes for strings and to just add or subtract we leave the quotes. that’s why I think it worked without the quotes.

**Lesson 4: Strings – Operators**

1. Type “appl” + “e” and explain what it does. Why do you think this works?

* By typing that it gave me one variable, which was apple with any add sign.
* It worked because it is called concatenate, because it’s like adding, that we use to put strings together side by side.

1. Type “apple” - “e” and explain what it does. Why do you think this gives an error?

* Typing “apple” - “e” does not work for some reason because it gives us type error.
* I think this is because the subtract sign does not work in python.

1. Type “Hello” \* 10 and explain what it does. Why do you think this works?

* By typing” Hello” \* 10, what happened was that the python said hello 10 times.
* I think it works because multiplying controls how many times we control a string.

1. Type “Hello” / 10 and explain what it does. Why do you think this gives an error?

* Typing that gives syntax error.
* I think it gives us the error because this sign / did not work.

1. The ***concatenation*** operator (+) is very useful for working with strings. Explain ***concatenation*** with words and examples.

* *Concatenation is like if you want to put a string side to side you use the add sign, for example “Hi” + “there!” which then puts it together like the answer for that would be ‘Hithere!’*

**Lesson 4: Strings – Indexes and Lesson 4: Strings – Indexes Examples**

1. Create a string using the letters in your first name and write down the index number for each letter.

* **“I”+”m”+”a”+”n”**

**0 1 2 3**

1. Explain why print(“Hello!”[4]) does not print “l”.

* Then index 1 is the letter 'e', indexes 2 and 3 are 'l'. And index 4 is the letter 'o', that’s why we didn’t get letter” I”

1. What does print (“Hay, Bob!” [4]) print? For a hint try print (“Hay, Bob!” [3]) and print (“Hay, Bob!” [5])

* It does not say any word, so that means by typing 4 is a **space** in Hey, Bob.

1. Answer True or False: “String indexes in Python begin at 0”. Do you need to know the reason for this or do you just need to remember this?

* True

**Lesson 5: Variables**

1. Complete “Lesson 5: Variables – Save a Value” by typing the sample commands in the black area of the IDE.
   1. What do you get if you type puppies / 3? \

* I does not work. It gives me a Name error.
  1. Why doesn’t typing kittens / 3 work?

* I does not work. Because it gives me a name error.

1. Complete “Lesson 5: Variables – Math Operators” by typing the sample commands in the black area of the IDE.
   1. Explain what happens for following sequence of commands:
      * color = “red”
      * It does not give any answer, but if you type in the black area color it would say red in quotes.

**puppies = 36**

* Typing puppies does not give any answers because we did not ask it for the answer, and if you need the answer u can type in black area for the answer by typing puppies and it will give the answer 36.

**color + puppies**

* Typing this command gives us a name error, maybe I think it’s because it’s not in quotes.

1. Complete “Lesson 5: Variables – String Operators” by typing the sample commands in the black area of the IDE.
   1. Explain why the following commands give different results:
      * Color + day \* fishes
      * ( Color + day ) \* fishes
      * Nothing is working on my python, whatever I write it gives me name error for no reason, but when I’m seeing the tutorial tells us the answer.
2. Complete “Lesson 5: Variables – Indexes” by typing the sample commands in the black area of the IDE.
   1. What is the index of ‘r’ in “watermelon”?

* fruit = "watermelon"
* fruit [4]
  1. Write an expression using mynumber to return ‘r’

* mynumber = 6
* fruit[mynumber-2]

1. Integers (numbers) and Strings (letters) are different data types in Python?
   1. What doesn’t “friend” + 5 work?

* Because it can only contenate str not (int)
  1. What is the difference between the ***int*** and ***str*** data types?
* The difference is that integer can be converted to string, but however strings cannot convert into an integer.