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.

* we're talking about characters, like letters or symbols, or a bunch of characters put together, like words.

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

* Because python can’t read it

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

* No, there’s no difference between using single or double quotes.

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

* Because there is no double quote in the end

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

**Lesson 4: Strings – Operators**

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

* It adds the letter “e” together

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

* Because only adding works

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

* Because of multiplying. The hello repeats 10 times

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

* Its gives an error because dividing doesn’t work

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

* Concatenation is like adding. It’s used to put strings together side by side.

**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.

“J” + “a” + “s” + “m” + “e” + “e” + “n”

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

* Because it is supposed to be letter “o”. “l” is not the 4th one.

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

* It shows a space w

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, string indexes start at 0. You just need to remember it.

**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?
   2. Why doesn’t typing kittens / 3 work?
2. 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:
      * colour = “red”
        + the word “red” comes back and repeats
      * puppies = 36
        + after i type puppies, it gives me 36
      * colour + puppies
        + I get ‘red36’
3. 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
        + Its giving me an error
      * ( Color + day ) \* fishes
        + Syntax error
4. 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”?
      * + 4
   2. Write an expression using mynumber to return ‘r’  
      mynumber=4

fruit(mynumber -2)

1. Integers (numbers) and Strings (letters) are different data types in Python?
   1. What doesn’t “friend” + 5 work?
   2. What is the difference between the ***int*** and ***str*** data types?
      * + Integer is a numeric value while strings is a character value represented in quotes.