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.

-          Strings are used to store text in a program

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

-          When typing apple with quotations it identifies you group what is together. When you do not add quotations it doesn’t identify this

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

-          No there is no difference because as mentioned before it identifies you are grouping them together.

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

* When typing apple like this it has a single quotation and a double quotation. In order for the code to work they have to have the same type of quotation.

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

-          When you add quotations it repeats itself and has single quotations whereas we started off with double. When using no quotations it performs simple math commands like addition.

**Lesson 4: Strings – Operators**

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

It says “apple” at the end. It does that because it adds the letters together creating a word. I think this works because by using “letters” + “letters”, the program knows to combine them together.

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

  It gives an error, because the code is it is not used to subtract

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

 It works because the code is asking the program to type hello ten times, by multiplying hello by 10. Hello is like the variable and 10 is the amount of time you multiply it.

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

  This gives an error because it’s not used to divide.

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

  Concatenation is like using Addison (+). You can “add” strings together to put them beside each other.

**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.

"R" + "i" + "a"

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

The fourth letter in an O so this program would print the letter O if the number was o at the end of the program then it would print “l”. The letter H starts at 0 and you would count the next number as 1.

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

 - 4 would print “B”

- 3 would print “,”

- 5 would print “o”

4.       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?

 It’s true that string indexes start at 0. There is no reason behind this you just have to know

**Lesson 5: Variables**

1.   Complete “Lesson 5: Variables – Save a Value” by typing the sample commands in the black area of the IDE.

a.       What do you get if you type puppies / 3?

→ 12

b.       Why doesn’t typing kittens / 3 work?

→ Because kitten isn’t given a value.

2.   Complete “Lesson 5: Variables – Math Operators” by typing the sample commands in the black area of the IDE.

a.       Explain what happens for following sequence of commands:

·   colour = “red”

·   puppies = 36

·   colour + puppies

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

 It works because the code is asking the program to type hello ten times, by multiplying hello by 10. Hello is like the variable and 10 is the amount of time you multiply it.

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

  This gives an error because it’s not used to divide.

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

  Concatenation is like using Addison (+). You can “add” strings together to put them beside each other.