1. In the below elements which of them are values or an expression? eg:- values can be integer or string and expressions will be mathematical operators.

\*

'hello'

-87.8

-

/

6

**ANS. values are 6, -87.8, ‘hello’ and expressions are - , / , + , \* .**

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2. What is the difference between string and variable?

**ANS. A Variable is a store of information, and a String is a type of information we would store in a variable. Ex. String S = “Hi ineuron team”. S is the variable and declare as string.**

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3. Describe three different data types.

**ANS. Numeric: These can be either integers or floats. (Int 99,23,200 and float 1.3, 2.9, 9.0)**

**Boolean: These are True/False values. (Common operators are &&, ||, !)**

**String: These are text values composed of a sequence of characters.**

**(Ex. “Ineuron”, “Python class”, “assignments”)**

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4. What is an expression made up of? What do all expressions do?

**ANS. A combination of operands and operators is called an expression.**

**EX. x = x + 1, x = y + 10, y=x+30.(+,=, % are operators and x,y are operands)**

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5. This assignment statements, like spam = 10. What is the difference between an expression and a statement?

**ANS. A Statement is like sentence in made up of Expressions in Python**

**Expression is made up of 1 or more “building blocks”**



**print(“the solution is: ” , 3\*4 ) these building bloacks themselves expressions**



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6. After running the following code, what does the variable bacon contain?

bacon = 22

bacon + 1

**ANS. The bacon variable is set to 20. The bacon + 1 expression does not reassign the value in bacon (that would need an assignment statement: bacon = bacon + 1)**

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7. What should the values of the following two terms be?

'spam' + 'spamspam'

'spam' \* 3

**ANS. 'spam' + 'spamspam' = spamspamspam  
 'spam' \* 3 = spamspamspam ----both print same**

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8. Why is eggs a valid variable name while 100 is invalid?

ANS. Because variable names can’t start with a number.

9. What three functions can be used to get the integer, floating-point number, or string version of a value?

**ANS. Int(), float(), str()**

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10. Why does this expression cause an error? How can you fix it?

'I have eaten ' + 99 + ' burritos.'

ANS. **This expression causes and error because in this line 'I have eaten' and 'burritos' are strings, while 99 is treated as integer.**

**We can fix the error like this -- print 'I have eaten 99 burritos.', 99 needs '' around it to treat it as a string.**