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.

\* : Expression(Mathematical operators)

'hello' : Value (String)

-87.8 : Value (Float)

- : Expression(Mathematical operators)

/ : Expression(Mathematical operators)

6 : Value (Integer)

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2. What is the difference between string and variable?

A Variable serves as a storage unit for data, while a String represents a specific type of data that can be stored within a Variable. Typically, a String consists of words or characters enclosed in double quotation marks ("").

For instance:

Let's consider the example of a String:

String x = "Welcome to Ineuron"

In this case, "x" is the Variable, and we declare it as a String. The text "Welcome to Ineuron" is assigned to the Variable using a single equals sign (=).

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3. Describe three different data types.

* Integer: The data type "int" is utilized to represent whole number values. For example, "a" could be assigned the value 1, and "b" could be assigned the value -21.
* Float: The data type "float" is employed to represent real numbers, specifically floating-point values. For instance, "c" could be assigned the value 12.34, and "d" could be assigned the value -3.69.
* String: The data type "string" is used to represent a sequence of characters, which can include numbers, special characters, and alphabets. For example, "s1" could be assigned the value "Hello World!", and "s2" could be assigned the value "123<!@45".

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

Expressions can perform various operations such as arithmetic calculations, logical evaluations, string manipulations, and more. Python provides a wide range of built-in operators and functions that can be used in expressions to perform these operations.

Examples: r= 1+4-6\*10

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

Assignment: It is the statement where some value or expression is assigned to a variable or constant.

Difference: The difference is that expression itself is assigned to a variable or constant.

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

bacon = 22

bacon + 1

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Value if bacon will be 22

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

'spam' + 'spamspam'

'spam' \* 3

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

In Python variable name can start with alphabet or \_ .

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

* for int : int()
* for float : float()
* for string : str()

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

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

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The Error came because we are concatenating int and string

We need to type cast the int to string to fix the error

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