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.

|  |  |
| --- | --- |
| \* | Operator |
| 'hello' | Value |
| -87.8 | Value |
| - | Operator |
| / | Operator |
|  | Operator |
| 6 | value |

1. What is the difference between string and variable?

Ans: A variable can store data of any format ie int, float, Boolean, list, strings.

Ideally a variable is any address which we wish to store in the memory and then utilise it later I calculations

String: is also a variable , but it can store only string value, it cannot store data in any other format.

3. Describe three different data types.

Ans:

|  |  |  |
| --- | --- | --- |
| Boolean | Bool() | Used to store Boolean value 0/1 |
| Numerical | Int()/float() | Used to store integer or decimal values |
| list | List() | It is an ordered sequence of items. Can store any kind of value in it but maintains the order in which the data was set.  Identified as [] |
| tuple | Tuple() | It is also like list, but once the tuple is created, the data cannot be changes in any way i.e. they are immutable  Denoted by () |
| set | Set() | This is unordered, does not store the duplicate value  Denoted by {} |

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

Ans: Expressions are made up of variables, values, operators (logical, comparison)

Eg: a+b=20

a>20 and a<30

are all expressions

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

Ans: Statement is any command that is given to the python , expression has calculations associated with the variables

Eg: for I in range(10): -- expression

Print(i)-- statement

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

bacon = 22

bacon + 1

Ans: 23

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

'spam' + 'spamspam'

'spam' \* 3

Ans: returns ‘spamspamspam’ in both the cases

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

Ans: Variable name cannot start with an integer , and should start with a string/\_ only. Thus egg is valid but 100 is invalid

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

Ans: Integer: int()

Floating point number : float()

String: str()

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

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

Ans: concatenation is possible only with the strings, as 99 is an integer value , it will throw the error , correct code will be 'I have eaten ' + str(99) + ' burritos.'