

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)

'hello' (String)

-87.8 (value)

- (Expression)

/ (Expression)

+ (Expression)

6 (value)

2. What is the difference between string and variable?

Ans: In python string can be explain as it's a sequence of characters enclose in(' ' , " " , "" "") in this quotes for example: " neuron " , ' neuron '

As on the other hand variables are that can hold data while a string is a type of data that can be stored in a variables. They can stored different types of data like strings, numbers, lits etc

For ex: a = "harshal"

3. Describe three different data types.

Ans: Integer(int): this data type represents whole numbers for exp: 5 , -10

List: list is versatile data type use to store. List can contain different data types and they're mutable means you can change their elements. An example of a list: my_list = [1, 'apple', False, 0.65]

String: strings are sequences of characters composed in single , double, triple quotes. for ex:

'string' , "Data" etc.

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

Ans: An expression in python is made up of operands , variables, values combined with operators like +, *, /, - etc. it represents a computation that produces a value. expression

can be simple like 2/8, 4-2 etc or involving multiple operations and variables and all expression in python evaluate to a value this value could be a number, a string or another data type , depending on the operations and operands used within the expression itself.

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

Ans: An expression evaluate to single value but the statements does'nt.

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

```
bacon = 22
```

```
bacon + 1
```

Ans: `bacon = 23`

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

```
'spam' + 'spamspam'
```

```
'spam' * 3
```

Ans: `'spam' + 'spamspam' = spamspamspam`, `'spam' * 3 = spamspamspam`

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

Ans: `eggs` = this correct because its starting with a variable.

`100` = variable cannot start with numbers

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

Ans: `int()`, `float()`, `str()` will evaluate this functions as the value pass to them.

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

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

Ans: can only concatenate string (not integer) to string

the correct way is = ('I ' ' have ' ' eaten ' + str(99) + ' burritos. ')