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

Answer :

(' * ' , ' - ' , ' / ' , ' + ') : these are expression

(-87.8,'hello','6') : These are values

2. What is the difference between string and variable?

Answer : String is a data type in any programming language. That used to represent text

Variable is a thing in programming languages that used to store information that can be data type like string, float, integer etc. Or any data structures like list, array etc.

3. Describe three different data types.

Answer : In python there mainly 4 datatype:

1. Integer -> That all numeric values without decimal points ex: -1,-2,0, 1,2,3,4
2. float -> Numbers with decimal points are float ex: 1.1,2.2,3.3
3. string -> Anything that represent text is string ex: 'hello','1'
4. boolean -> Any operation that gives the result either in true or false that is boolean. ex: True, False

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

Answer: An expression is something when multiple operators are combined together to perform some specific task and will return some values. For example, x + y * 3 This whole thing is an expression.

The main objective of any expression is by combining different operators and return a value

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

Answer : This whole thing **spam = 10** is a statement and 10 is an expression.

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

bacon = 22

bacon + 1

Answer : Bacon will be 22. There will be no change as we are not reassigning it to itself.

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

'spam' + 'spamspam'

'spam' * 3

Answer : 'spam' + 'spamspam' = 'spamspamspam'

'spam' * 3 = 'spamspamspam'

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

Answer : Because variable can't be start with numerical values

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

Answer : int for integer, float for floating-point number and str for string

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

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

Answer : Because we cannot add string and numeric data type to each other