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' - value

-87.8 - value

- expression

/ expression

* expression

6 value

Answer is typed above inline.

2. What is the difference between string and variable?

**Answer:** A string is a sequential collection of alphabets, alphanumeric characters. String is always embraced with double open and closing quotes or single open and closing quotes. For example: “hello world” , “Hello1234”

A variable is a container to store values. For example : a = 10 where a is a variable which stores the integer 10 in it.

3. Describe three different data types.

**Answer:** Three different data types – Strings, Float and Integer.

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

**Answer:**

Expression is made up of a variable name, operators which would do some specific task and also values.

Suppose: x= 2+3 🡪 which implies that it solves a specified problem and gives a solution.

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

**Answer:**

**Expression:** produces an output post solving something z = 10 + 5 = 15; it’s a combination of values, variable names and operators.

**Statement**: print(“Hello”) 🡪 here print keyword shall print Hello in the Console output which implies it basically carries out the operation which it is being told to. Other examples are: if, else, for, import.

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

bacon = 22

bacon + 1

**Answer:** 23

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

'spam' + 'spamspam'

**Answer:** spamspamspam

'spam' \* 3 🡪

**Answer:** spamspamspam

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

**Answer:** 100 is invalid because it does not satisfy the variable naming convention. A variable must start with an alphabet or \_ .

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

**Answer:** Int(), float(), str()

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

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

**Answer:**

Expression causes an error because we cannot concatenate integer with string.

In order to concatenate we need to convert 99 to string by using str().

Fix: 'I have eaten ' + str(99) + ' burritos.'