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.

Ans:

Expressions:

\*, -, /, +

Values:

‘hello’, -87.8, 6

1. What is the difference between string and variable?

Ans:

|  |  |
| --- | --- |
| String | Variable |
| it is sequence or array of characters representing value | Variable is a name that refers to a value. It is sequence characters representing global or local instance to store the data |
| It is always declared with double or single quotation.  eg: ‘Hello’ | No need of quotation while declaration, but a value must be assigned using ‘=’ sign  eg: variable = ‘Hello’ |

3. Describe three different data types.

Ans: Boolean

Float

string

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

Ans : Expression is combination of values, variable, and operators. Not every expression contains all these elements. A value all by itself is considered an expression, and so is a variable.

Expression is evaluated and then interpreter returns the result,

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

Ans:

When we enter the assignment statement, spam = 10, only the prompt is returned. There is no value. This is because the assignment statement, do not return a value. They are simply executed.

While the result of executing the assignment, statement is the creation of a reference from a variable, spam, to a value, 10. Here expression is appearing on the right hand side of the assignment statement. Value 10 and variable spam by itself a expression

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

bacon = 22

bacon + 1

Ans : 22

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

'spam' + 'spamspam'

'spam' \* 3

Ans: spamspamspam

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

Ans: Variable name should start with a letter not numeric, so 100 is numeric it is not valid variable name.

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

Ans: int (), float (), str ()

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

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

Ans: The expression causes error because 99 is integer datatype others are string datatype. The plus (+) sign is trying to concat the string and integer, which are different data types.

Fix: convert the integer 99 to string using str() function

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