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.

**Answer**

\* - Expression

'hello' - Value

-87.8 - Value

- - Expression

/ - Expression

* - Expression

6 - Value

2. What is the difference between string and variable?

**Answer:**

|  |  |  |
| --- | --- | --- |
| **Sr. No.** | **String** | **Variable** |
| 1 | String is a data type | Variable is not a data type. |
| 2 | e.g. “I am an Indian” | e.g. a = 2 |
| 3 | String can have fixed or different values during its lifetime. | Same Variable can take different values during the life time of it. |

3. Describe three different data types.

**Answer:**

Different data types are –

1. Integer – It is a whole number e.g. 30
2. Float – It is real number e.g. 3.14
3. String – It is a collection of characters enclosed in single or double quotes e.g. “ I am an Indian”

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

**Answer:**

An expression is made up of operands and operator.

All expressions result into a value.

e.g. X = X + 10 is an expression and if we know the value of X, it will result into an value.

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

**Answer:**

An expression result into a value whereas a statement does not result into a value.

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'

'spam' \* 3

**Answer:**

‘spamspamspam’

‘spamspamspam’

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

**Answer:**

eggs is a valid variable name as it begins with a char and does not contain any special char.

100 is invalid variable name as it begins with a number.

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:**

Integer cannot be concatenate with strings.

We need to give the formatting instructions to remove the error or the integer (99) must be converted to string.