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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.

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\* This is an expression use to denote multiplication operations in programming language.

'hello'

‘hello’ is a string (value) as its under single quotation.

-87.8

-87.8 is a value as its an integer value.

-

- is an operator (expression) as its used for subtract values.

/

/ also is a operator (expression) as its used for division

* also is a operator (expression) as its used for addition

6

6 is a integer (value).

2. What is the difference between string and variable?

String is something which we denotes under single or double quote (‘’ , “”) it could be anything from numbers to alphabets, basically it’s a value.

Whereas Variable is something like a container which we generally use to store values.

3. Describe three different data types.

Int : stands for Integer which could be any number. Ex. 6

Float : same as integer but instead of showing stable value it provides in decimal form. Ex: 6.0

String : use to define characters which we always write either in single or double quotation(“” , ‘’)

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

An expression is a combination of operators and operands.

Expressions are basically mathematical operators which we generally use to perform all kind of mathematical operations within a program.

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

Expression used to evaluate the values given whereas a statement is a piece of code that give instruction to perform particular task, here in above example spam = 10, statement is actually giving instruction that first make a variable spam and assign it a value i.e. 10, whereas an expression is simply evaluating that variable spam is assigned by numeric value 10.

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

bacon = 22

bacon + 1

bacon will still contain 22 because we have not initialized second statement will variable bacon.

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

'spam' + 'spamspam'

'spam' \* 3

‘spamspamspam’ it will give same output for both the statements.

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

Because according to Variable Declaration protocol a variable can be starts with anything except an integer value or special characters.

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

Integer = int() , Floating-point number = float(), String = str()

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

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

Its throwing an error because we are trying to concatenate string with integer, in Python if we are concatenating something it should be of same type so to fix this error we simply have to convert integer i.e. 99 into string by string typecasting to it.

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