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 – values = “hello” , 87.8,6

Expression= -,/,+

2. What is the difference between string and variable?

Answer- **A Variable is a store of information, and a String is a type of information you would store in a Variable**. A String is usually words, enclosed with "" Eg String x ="Welcome to SoloLearn" X is the Variable, and we declared it as a String, use the single = to assign the text to

3. Describe three different data types.

Ans-

|  |  |
| --- | --- |
| **Text Type:** | **str** |
| Numeric Types: | int , float , complex |
| Sequence Types: | list , tuple , range |
| Mapping Type: | dict |
| Set Types: | set , frozenset |

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

Ans- An expression is a construct made up of **variables, operators, and method invocations**, which are constructed according to the syntax of the language, that evaluates to a single value.

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

Ans- This assignment statements, like spam = 10. What is the difference between an expression and a statement? **Expression is made up of values, containers, and mathematical operators (operands) and the statement is just like a command that a python interpreter executes like print**.

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

bacon = 22

bacon + 1

ANS- The bacon variable is set to 20 . The bacon + 1 expression does not reassign the value in bacon (that would need an assignment statement: **bacon = bacon + 1** ).

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

'spam' + 'spamspam'

'spam' \* 3

ANS- **The string is 'spam' ; the variable is spam** . Strings always start and end with quotes. The three data types introduced in this chapter are integers, floating-point numbers, and strings. An expression is a combination of values and operators.

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

ANS- **Variable names cannot begin with a number**.

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

ANS- The **int() , float() , and str( )** functions will evaluate to the integer, floating-point number, and string versions of the value passed to them.

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

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

ANS- The expression causes an error because **99 is an integer, and only strings can be concatenated to other strings with the + operator**. The correct way is I have eaten ' + str(99) + ' burritos.