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.

\* => expressions

'hello' =>Value

-87.8 =>Value

- => expressions

/ => expressions

* => expressions

6 =>Value

2. What is the difference between string and variable?

A variable is a store of information,

A string is a type of information you would store in a Variable.

A string is usually words, enclosed with ""

mystr ="Welcome to SoloLearn"

ystr is the Variable, and we declared it as a string, use the single = to assign the text to it.

3. Describe three different data types.

**Floating-Point Numbers:** The float type in Python designates a floating-point number. float values are specified with a decimal point. Optionally, the character e or E followed by a positive or negative integer may be appended to specify scientific notation: 0.2, 23.45 0.2, 23.45

**Complex Numbers:** Complex numbers are specified as <real part>+<imaginary part>j. For example: 2+3j 🡺(2+3j) type(2+3j)🡺 <class 'complex'>

**Boolean data type**: Objects of Boolean type may have one of two values, True or False: Example- type(True)🡺 <class 'bool'> type(False)🡺<class 'bool'>

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

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. An **expression** can return other types of values as well, such as boolean or String.

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

An **expression** evaluates to a value. A **statement** does something. **Statements** represent an action or command e.g print **statements**, assignment **statements**. **Expression is** a combination of variables, operations and values that yields a result value.

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

bacon = 22

bacon + 1

Ans= bacon will have value as 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?

Eggs is made of characters and 100 is a numeric value. A variable can contain chars but it should not start with literals or numeric values

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.'

It will trow error like TypeError: can only concatenate str (not "int") to str. Just give 99 value in quotes, it will work.