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.

\* is a multiply expression

'hello' is a string value

-87.8 is a floating value

- is a substraction expression

/ is a divide expression

* is a adding expression

6 is a integer value

2. What is the difference between string and variable?

Ans- [A string is one of the many data types that can be stored in a variable](https://www.sololearn.com/discuss/679419/what-is-the-difference-between-string-and-variable). A variable is a container that stores data values.

3. Describe three different data types.

Ans- 1. Numeric: It includes integers, floats, and complex numbers.

2. String: Strings are sequences of characters enclosed within single or double quotes.

3.Sequence: It includes lists, tuples, and range objects.

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

Ans- An expression is a sentence with a minimum of two numbers and at least one math operation (addition, subtraction, multiplication, and division).

[In programming, expression is an interpreter evaluates the expression and displays the result.](https://docs.oracle.com/javase/tutorial/java/nutsandbolts/expressions.html)

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

Ans- An expression is a sentence with a minimum of two numbers and at least one math operation (addition, subtraction, multiplication, and division) whereas Statement is an instruction that the Python interpreter can execute & it does not evaluate to a value. Here spam = 10, is a statement that assigns the value 10 to the variable spam.

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

bacon = 22

bacon + 1

Ans - 23

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

'spam' + 'spamspam'

'spam' \* 3

Ans - 'spamspamspam'

'spamspamspam'

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

Ans - Because variable names cannot begin with a number. A variable can have a short name (like x and y) or a more descriptive name (age, bikename, total\_weight)

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 – Because it can only concatenate str (not "int") to str

Fixing this error by converting integer 99 to string as below:-

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