

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.

- \* = expression
- 'hello' = value
- -87.8 = value
- - = expression
- / = expression
- + = expression
- 6 = value

2. What is the difference between string and variable?

- String :- A string can be written in quotes such : "Pankaj", 'Pankaj'
- Variable :- It is the thing in which we can store data just like a container.

3. Describe three different data types.

- Integer : Integer can be store only numerical values.
- Float : Float can be store only floating values such as 3456.764, 6745.53445 etc.
- List : The list is used for storing multiple data items in a single variable.

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

- Expression is made up of values, containers, and mathematical operators (operands)

eg  $a = 2 + 3$  and expressions are used to evaluate the values or represent the result on the screen.

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

- Expression is made up values, containers, and mathematical operators (operands) and the statement is just 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`
- sol : (output = 23) it gives 23 as execution code.

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

- `'spam' + 'spamspam'`  
➤ (Output :- `'spamspamspam'`)
- `'spam' * 3`  
➤ (Output :- `'spamspamspam'`)

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

- We can't start giving variable an integer name. if we, we should begin with, a string-like alphabet name then integer. `e100` or `eggs100` is valid.

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

- `Str()`, `int()`, `float()`

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

`'I have eaten' + 99 + 'burritos'`

- sol: because 99 is an integer it cannot be concatenated with strings, if we have to concatenate it we need to do typecasting.