

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 are *, -87.8, -, /, +

And string is 'hello'

2. What is the difference between string and variable?

Answer - Variable is which store the information and string is a information which is being stored within a variable.

Example – num1 = 'hello'

Here num1 is a variable and 'hello' is an information we store in the variable num1 and string always written between ' ' or " ".

3. Describe three different data types.

Answer - List: It is like an array ordered collection of data and it is flexible that contains different types of items.

Tuple: It is like list but it is immutable, tuples cannot be modified after it is created.

Set: It is an unordered collection of data type that is iterable, mutable, and no duplicate value

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

Answer – An expression made up of variable, operators, and method.

All expression evaluates to a single value.

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

Answer - An expression made up of variable, operators, and method.

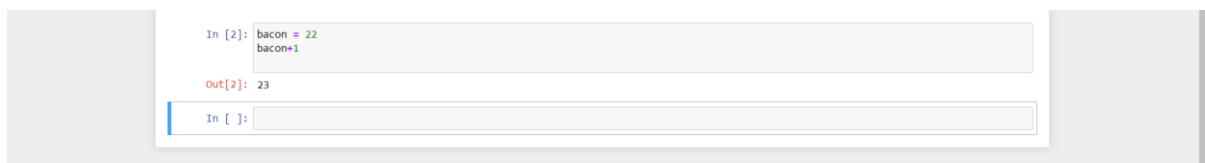
And the statement is like a command.

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

```
bacon = 22
```

```
bacon + 1
```

Answer - `bacon` contain 23

A screenshot of a Jupyter Notebook interface. The top part shows the input prompt 'In [2]:' followed by two lines of code: 'bacon = 22' and 'bacon+1'. The bottom part shows the output prompt 'Out[2]:' followed by the value '23'. Below this, there is an empty input prompt 'In []:'.

```
In [2]: bacon = 22
        bacon+1

Out[2]: 23

In [ ]:
```

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

```
'spam' + 'spamspam'
```

```
'spam' * 3
```

Answer - `'spamspamspam'`

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

Answer - we can't give an integer as a variable name the variable name always start with an alphabet

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

Answer – `str ()`, `float ()`, `int ()`

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

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

Answer – Here 99 is an integer we can't concatenated an integer with a string here we need to do typecasting

