

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.

\* : Mathematical Operator (product)

'Hello' : String

-87.8 : Integer

- : Mathematical Operator (Subtraction)

/ : Mathematical Operator (Division)

+ : Mathematical Operator (addition)

6: Integer

2. What is the difference between string and variable?

a variable is a numeric container that can be used to do mathematical operations on the other hand a string is used to represent words or numbers but cannot be used to do operations. The only exception is using the \*n operator on a string which outcomes the string repeated n times.  
Ex:

```
>>>a = 'marcello'
```

```
>>>a*3
```

```
marcellomarcellomarcello
```

3. Describe three different data types.

Integer: allow us to work with integer values like : 2,-3,100...

Float: allow us to work with decimal values like: 2.3, 4.5, 100.2

Bool: can be either True or False. Particularly used in if conditions.

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

An expression is made up of two entities:

1.Numerical Values

2.Mathematical Operators

All the expressions combines those two entities in order to get an outcome.

The "combination" can be:

- Addition
- subtraction
- multiplication
- Division
- Exponentiation
- Quotient
- Remainder

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

Expression produces some sort of result, statements don't necessarily need to return something.

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

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

spamspamspam

spamspamspam

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

In order to get a valid variable name we don't have to use either numbers or keywords. 100 is a number.

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

int()

float()

str()

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

Because 99 is not a string but a number, we are trying to print a string. We can address this by casting 99 into a string: str(99)

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