

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.

* = It's a expression

'hello' = It's a string

-87.8 = It's a float

- = It's a expression

/ = It's a expression

+ = It's a expression

6 = It's a integer

2. What is the difference between string and variable?

A variable is used to store information which can be string, integer, character or float while a String is a type of information you would store in a Variable. A String is usually words, enclosed with.

3. Describe three different data types.

Integer (int)

It is the most common numeric data type used to store numbers without a fractional component (-707, 0, 707).

Floating Point (float)

It is also a numeric data type used to store numbers that may have a fractional component, like monetary values do (707.07, 0.7, 707.00).

Character (char)

It is used to store a single letter, punctuation mark, symbol, or blank space.

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

An expression is a combination of operators and operands that is interpreted to produce some other value. In any programming language, an expression is evaluated as per the precedence of its operators. So that if there is more than one operator in an expression, their precedence decides which operation will be performed first

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

An Expression is a sequence or combination of values, variables, operators and function calls that always produces or returns a result value

Example: `x=5, y=3, z=x+y`

A Statement is the smallest executable unit of code that has an effect, like creating a variable or displaying a value. Each and every line of code that we write in any programming language is called a statement.

Example: `x=3, print(x)`

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

```
bacon = 22
```

```
bacon + 1
```

It will still contain 22

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

```
'spam' + 'spamspam' = 'spamspamspam'
```

```
'spam' * 3 = 'spamspamspam'
```

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

A variable cannot start with an integer

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

`int(value)`, `float(value)`, `str(value)`

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

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

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