

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.

* — expressions

'Hello' —values

-87.8—values

- — expressions

/ — expressions

+ — expressions

6 — values

2. What is the difference between string and variable?

A string is a sequence of one or more characters (letters, numbers, symbols) that can be either a constant or a variable. Made up of Unicode, strings are immutable sequences, meaning they are unchanging.

A Variable is a store of information, and 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.

Integers – This value is represented by int class. It contains positive or negative whole numbers (without fraction or decimal). In Python there is no limit to how long an integer value can be.

Float – This value is represented by float class. It is a real number with floating point representation. It is specified by a decimal point. Optionally, the character e or E followed by a positive or negative integer may be appended to specify scientific notation.

Complex Numbers – Complex number is represent

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.

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

Statements represent an action or command e.g print statements, assignment statements.

```
print 'hello', x = 1
```

Expression is a combination of variables, operations and values that yields a result value.

```
5 * 5 # yields 25
```

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

```
bacon = 22
```

```
bacon + 1
```

```
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?

We cant name a variable starting with 100 because its numeric type value and number

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

The `int()`, `float()`, and `str()` functions will evaluate to the integer, floating-point number, and string versions of the value passed to them.

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

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

We cannot concatenate string with number if we replace 99 with '99' error will be solved