

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?

Ans: 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 " "

x="HELLO WORLD "

X is the Variable, and HELLO WORLD is the String

3. Describe three different data types.

Data type specifies the type and size of values that can be stored in a variable.

Three different datatypes are:

String : It only accepts character data.

Integer: it only accepts an integer value.

Boolean: It only accepts a true or a false value.

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

An expression is a construct made up of variables, operators, and method invocations, which are constructed according to the syntax of the language, that evaluates to a single value.

Expression are used to perform several tasks in programming.

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

An expression is evaluated to a single value where as statement remains as it is.

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

```
bacon = 22
```

```
bacon + 1
```

bacon contains 22

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

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

```
'spam'* 3
```

Both expression evaluate to the string "spamspamspam"

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

As variables name cannot begin with a number `100` is invalid

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

`int()`, `string()`, `float()` can be used to get the integer the integer, floating-point number, or string version of a value.

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

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

The expression causes an error because `99` is an integer, and only strings can be concatenated to other strings with the `+` operator. The correct way is `I have eaten ' + str(99) + ' burritos'`