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

Arithmatic Operator

String Value

Floating Point value

Arithmatic Operator

Arithmatic Operator

Arithmatic Operator

Integer

2. What is the difference between string and variable?

Answer

Variable-spam

String-“spam”

Strings always start and end with quotes

3. Describe three different data types.

Answer

Integers

Floating-Point numbers

Strings

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

Answer

We can say an expression is a combination of values, variables, operators. There are three kinds of expressions

Arithmetic expression

It evaluates to a single arithmetic value.

Character expression evaluates to a single value of type of character.

A logical or relational expression evaluates to a single logical value.

All expressions evaluate to a single value.

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

Answer

An expression evaluates to a single value. A statement does not.

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

bacon = 22

bacon + 1

Answer -

The bacon variable is set to 22. The bacon + 1 expression does not reassign the value in bacon (that would need an assignment statement: bacon = bacon + 1)

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

'spam' + 'spamspam'

'spam' \* 3

Answer -

Both expressions evaluate to the string 'spamspamspam'

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

Answer -

Variable names cannot begin with a number.

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

Answer -

The int(), float(), and str() functions respectively can be used to convert a value to an integer, a floating-point number, or a string?

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

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

Answer -

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.'.