**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:** I have added the data types in following table

|  |  |
| --- | --- |
| **Data** | **Data Type** |
| \* | expression |
| 'hello' | string value |
| -87.8 | float value |
| - | expression |
| / | expression |
| + | expression |
| 6 | integer value |

**2. What is the difference between string and variable?**

**Answer:** a string is a value represents text however a variable is a name that can refer to any value.

**3. Describe three different data types.**

**Answer: below are three different data types description**

1. a float data type is number with a decimal point e.g. 8.19, 10.07, 00.18
2. a Boolean data type represent the logic values e.g. true, false
3. an integer data type is whole number e.g. 8, 10,18

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

**Answer: An expression is a combination of operators and operands. Below are expressions details.**

+ will do addition (plus)

- will do subtract (minus)

\* will do multiply

/ will do divide

\*\* will do power

% will do modulo

< will do less than

> will do greater than

<= will do less than or equal to

>= will do greater than or equal to

== will do equal to

!= will do not equal to

**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 variable bacon will contain 22 as we did not assignment the new value again.

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

**'spam' + 'spamspam'**

**'spam' \* 3**

**Answer:** Both statements will give us same result as 'spamspamspam'

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

**Answer:** 100 is invalid variable as 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:** To get an integer the function is int().To get the floating-point number the function is float().To get a string the function is str().

**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. Only strings can be concatenated to other strings with the + operator. Below is corrected expression

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

Thank You!

Regards,

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