

Assignment Questions and Answers

Q1: 1. In the below elements which of them are values or an expression?

A: 'hello' (Value - String), -87.8 (Value - Float), - (Expression), / (Expression), 6 (Value - Integer)

Q2: 2. What is the difference between string and variable?

A: A string is a sequence of characters, while a variable is a name used to store data values.

Q3: 3. Describe three different data types.

A: Integer (whole numbers), Float (decimal numbers), String (text enclosed in quotes).

Q4: 4. What is an expression made up of? What do all expressions do?

A: An expression is made up of values, variables, and operators. Expressions evaluate to a result.

Q5: 5. This assignment statements, like `spam = 10`. What is the difference between an expression and a statement?

A: An expression evaluates to a value, while a statement performs an action (e.g., assignment).

Q6: 6. After running the following code, what does the variable `bacon` contain?

A: After running the code, the value of `bacon` remains 22 as `bacon + 1` does not update `bacon`.

Q7: 7. What should the values of the following two terms be?

A: `'spam' + 'spamspam' = 'spamspamspam'`; `'spam' * 3 = 'spamspamspam'`

Q8: 8. Why is `eggs` a valid variable name while `100` is invalid?

A: Variable names must start with a letter or underscore. `'eggs'` is valid, but `'100'` is not.

Q9: 9. What three functions can be used to get the integer, floating-point number, or string version of a value?

A: `int()`, `float()`, and `str()` functions can convert to integer, float, and string, respectively.

Q10: 10. Why does this expression cause an error? How can you fix it?

A: The expression 'I have eaten ' + 99 + ' burritos.' causes an error because 99 is an integer. Fix it by converting 99 to a string: 'I have eaten ' + str(99) + ' burritos.'