1. What are the differences between operators and values in the following?

\*

'hello'

-87.8

-

/

+

6

Answers:

\* - Multiplication Operator

‘hello’ – String (Value)

-87.8 – Float (Value)

- Subtraction Operator

/ Division Operator

+ Addition Operator

6 – Integer (Value)

2. What is the difference between string and variable?

spam

'spam'

Answers:

spam is a variable

‘spam’ is a string. String always start and end with quote (Single or double)

3. Describe three different data forms.

Answers:

1. Numeric (Integer, Float)
2. String
3. Boolean
4. List
5. Tuple
6. Dictionary
7. Set

4. What makes up an expression? What are the functions of all expressions?

Answer:

Expressions perform actions based on operators and operand.

1. Arithmetic expression (+, -, \*, /, ^, %)
2. Relational expression (>, <, >=, <=, ==)
3. Logical expression (AND, OR, NOT)
4. In this chapter, assignment statements such as spam = 10 were added. What's the difference between a declaration and an expression?

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:

Bacon = 22

Another way: Bacon = 22

Bacon = Bacon + 1

Answer: Bacon = 23

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

'spam' + 'spamspam'

'spam' \* 3

Answer:

‘spamspamspam’

‘spamspamspam’ (Same Answer)

8. Why is it that eggs is a true variable name but 100 is not?

Answer: Variable names cannot begin with a number.

9. Which of the following three functions may be used to convert a value to an integer, a floating-point number, or a string?

Answer: int(), float(), and str() functions

10. What is the error caused by this expression? What would you do about it?

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

Answer: This expression throws an error because 99 is an integer, and only strings can be concatenated to other strings with the + operator. We cannot concatenate Strings and Integers together.