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

\*

'hello'

-87.8

-

/

+

6

Ans:

\*, -, /, + are the operators.

‘hello’, -87.8, 6 are the values.

The difference between operators and the values is that the operators perform certain action on the values in the expression.

eg: 1+(2\*5) is an expression where +, \* are the operators and 1, 2,5 are the values. In this expression \* operator is used to perform multiplication operation on the values 2 and 5 and + operator is used to perform addition operation on 1 and the resultant value of (2\*5).

2. What is the difference between string and variable?

spam

'spam'

Ans:

A string (‘spam’) is a value and a Variable (spam) is a placeholder for a value.

The value of the string is constant whereas the value of the variable can be changed any number of times.

Eg. If it is given like spam = 5 then the variable spam will contain the value 5

If it is given like spam = ‘spam’ then the variable spam will contain a string ‘spam’

3. Describe three different data forms.

Ans:

Three different data forms are:

1. Numbers (Integers and Floating-point numbers)

(eg: Integers – 1,2,3 etc., Floating-point numbers – 1.4, 4.5 etc.,)

1. Strings (‘I’, ‘am’, ‘Jayanthi’ etc.,)
2. Boolean values (True, False)

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

Ans.

Combination of Values/variables (called terms) with operators makes up an expression.

An expression usually contains minimum 2 two values/variables and an operator.

eg: ‘abc’ \* 2

2 + ((3 \* 4) / 2)

5. In this chapter, assignment statements such as spam = 10 were added. What's the difference between a declaration and an expression?

Ans: spam = 10 is the declaration of the variable value, whereas expression is a Combination of Values/variables (called terms) with operators makes up an expression.

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

bacon = 22

bacon + 1

Ans:

23

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

'spam' + 'spamspam'

'spam' \* 3

Ans:

'spam' + 'spamspam' 🡪 ‘spamspamspam’

'spam' \* 3 🡪 ‘spamspamspam’

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

Ans:

Because Variable names can’t begin with numbers.

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

Ans:

int() – to convert a value into an integer

(eg., int(‘20’) converts the string ‘20’ into integer

value 20)

float() - to convert the value into a floating point number

(eg., float(’20.5’) converts the string ’20.5’ into the floating point number 20.5

str() - create a new string object from the given object.

(eg., str(20) is ‘20’ )

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

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

Ans:

Error caused by the expression **'I have eaten ' + 99 + ' burritos.'**

**TypeError**: can only concatenate str (not "int") to str

The solution to this is changing the number 99 to string ‘99’

New Expression is – ‘I have eaten’ + ‘99’ + ‘burritos’

Output --🡪 ‘I have eaten99burritos’