

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

Operators are used to do operations such as addition, multiplication etc and values are just a type of data such as integer, floating point numbers, complex numbers etc.

\* --- It is a multiplication operator, used to perform multiplication operation.

'hello' --- It is a string.

-87.8 --- It is a negative floating point number.

- --- It is a subtraction operator, used for doing subtraction operation.

/ --- It is a division operator used for division of numbers.

+ --- It is addition operator used for addition.

6 --- It is an integer value.

2. What is the difference between string and variable?

Spam --- This is a variable, used as a name for allocating memory for a data type.

'spam' --- This is a string, which is expressed inside single or double quotes. It is a type of data.

3. Describe three different data forms.

Different data forms are integers, floating point numbers, string.

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

A single line of code that produces an output is called as expression.

The function of all expression is to carry out an operation, in order to get a desired output.

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

A declaration is used to assign a variable or to pass a value to a variable, but an expression contains declaration and other function to get an output.

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

```
bacon = 22
```

```
bacon + 1
```

`bacon` contains value as 23.

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

`'spam' + 'spamspam'`

`'spam' * 3`

The value of the following two terms will be 'spamspamspam'.

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

Because a variable in python, never starts with a integer.

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

For converting a value to integer, `int()` function is used.

For converting a value to floating point number, `float()` function is used.

For converting a value to string, `str()` function is used.

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

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

It shows a `TypeError`.

For getting a output, we have to convert the 99 to string and execute.

Input :

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

Output :

`'I have eaten 99 burritos.'`