

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:

Values : 'hello', -87.8, 6

Expressions: \* - / +

2. What is the difference between string and variable?

Answer:

String is a type of data that can be stored in a variable. It usually in text format and written in single or double quotes.

While variable is name of a part of memory that is stored inside it. Various types of data can be stored inside a variable like string, Integer, floating point number, Boolean.

3. Describe three different data types.

Answer:

1. String : String data type is denoted as 'str' in python. It contains characters.
2. Integer: it is denoted as 'int' in python. As the name suggests it contains integer values.
3. Floating point: it is denoted as 'float' in python. It contains numbers with decimal point.
4. Boolean: it is denoted as 'Bool' in python and contains only two value either True or False.

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

Answer:

An expression is a combination of values, variables, operators, and calls to functions. If you type an expression at the Python prompt, the interpreter evaluates it and displays the result, which is always a value.

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

Answer:

Assignment statement never yields result when executed by interpreter while expression always yields result when executed by interpreter.

For example `'a=20'` is a statement. When it is executed it will assign a value 20 to variable `'a'`. but it will not show any result.

`'2+2-5'` and `"type('hello')"` these two are expression as they will show some result when executed.

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

```
bacon = 22
```

```
bacon + 1
```

Answer:

Variable `bacon` will contain 23

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

```
'spam' + 'spamspam'
```

```
'spam' * 3
```

Answer:

Value of both terms will be `'spamspamspam'`

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

Answer:

Variable name never starts with number

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

Answer:

int(), float() and str() functions can be used respectively to get the integer, floating-point number, or string version of a value.

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

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

Answer:

Because 99 is integer. We have to convert it into string format before execution using single or double quotes. For example

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

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