

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.

\*

&#39;hello&#39;

-87.8

-

/

+

6

Answer →

Expressions :- \* # & - / +

Values → hello -87.8 , 39

2. What is the difference between string and variable?

Variables are symbols that you can use to store data in a program. You can think of them as an empty box that you fill with some data or value. Strings are data, so we can use them to fill up a variable. Declaring strings as variables can make it easier for us to work with strings throughout our Python programs.

3)Describe three different data types.

Numeric

In Python, numeric data type represent the data which has numeric value. Numeric value can be integer, floating number or even complex numbers. These values are defined as int, float and complex class in Python.

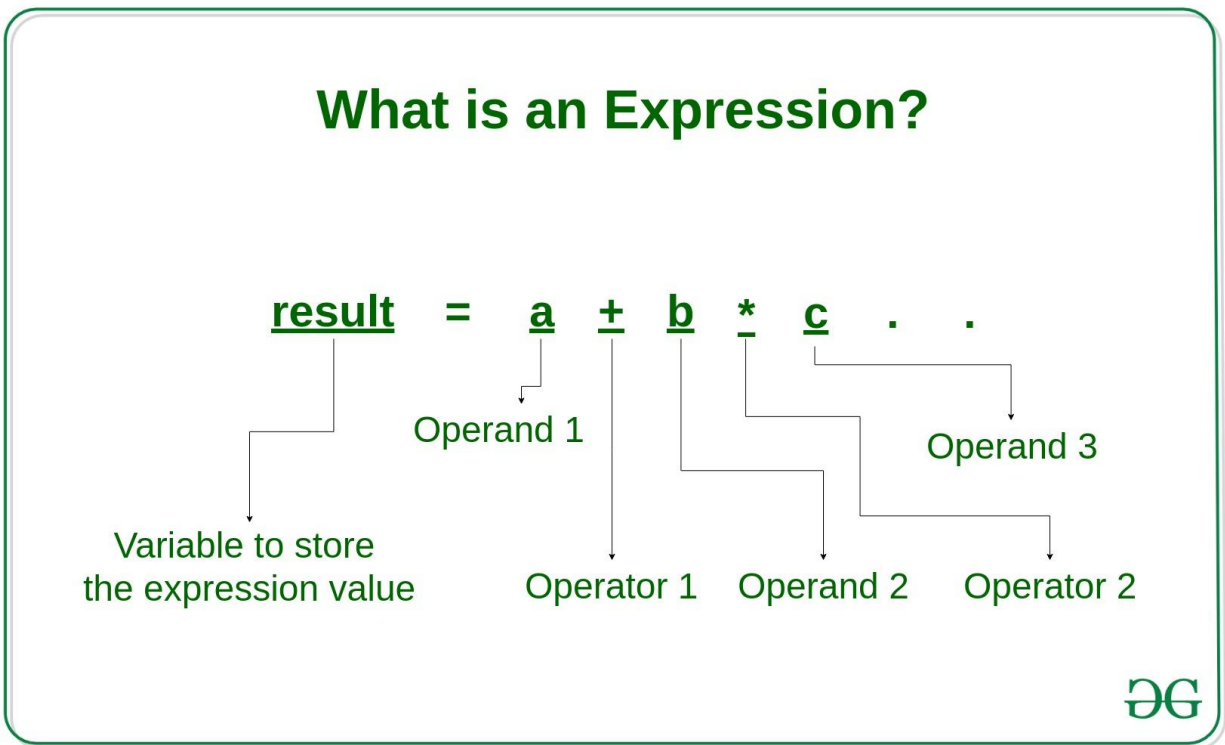
Integers – This value is represented by int class. It contains positive or negative whole numbers (without fraction or decimal). In Python there is no limit to how long an integer value can be.

Float – This value is represented by float class. It is a real number with floating point representation. It is specified by a decimal point. Optionally, the character e or E followed by a positive or negative integer may be appended to specify scientific notation.

Complex Numbers – Complex number is represented by complex class. It is specified as (real part) + (imaginary part)j. For example – 2+3j

3) What is an expression made up of? What do all expressions do?

An expression is a combination of operators and operands that is interpreted to produce some other value. In any programming language, an expression is evaluated as per the precedence of its operators.



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

Statements represent an action or command e.g print statements, assignment statements. Expression is a combination of variables, operations and values that yields a result value.

Here Expressions are :- `spam` is a string , `10` is an data type , whole combined is a statement

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

```
bacon = 22
```

```
bacon + 1
```

Answer :- 23

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

`"spam" + "spamspam" = spamspamspam`

`"spam"*3 = "spamspamspam"`

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

Eggs is a string data type where it can be stored as an variable by default

Where as 100 is an integer.

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

The `int()` , `float()` , and `str()` functions will evaluate to the integer, floating-point number, and string versions of the value passed to them

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

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

`" I have eaten 99 burritos"`