```
a + b + c
'Output': 'ILoveYou'

# let's add some space
a + ' ' + b +  ' ' + c
```

Arithmetic and Boolean Operations

This section introduces operators for programming arithmetic and logical constructs.

Arithmetic Operations

In Python, we can operate on data using familiar algebra operations such as addition +, subtraction -, multiplication ∗, division /, and exponentiation ∗∗.

```
2 + 2     # addition
'Output': 4
5 - 3     # subtraction
'Output': 2
4 * 4     # multiplication
'Output': 16
10 / 2    # division
'Output': 5.0
2**4 / (5 + 3)    # use brackets to enforce precedence
'Output': 2.0
```

Boolean Operations

Boolean operations evaluate to True or False. Boolean operators include the comparison and logical operators. The comparison operators include less than or equal to <=, less than <, greater than or equal to >=, greater than >, not equal to !=, and equal to ==.

```
2 < 5
'Output': True
2 <= 5
'Output': True
```

```
2 > 5
'Output': False
2 >= 5
'Output': False
2 != 5
'Output': True
2 == 5
'Output': False
```

The logical operators include Boolean NOT (not), Boolean AND (and), and Boolean OR (or). We can also carry out identity and membership tests using

- is, is not (identity)
- in, not in (membership)

```
a = [1, 2, 3]
2 in a
'Output': True
2 not in a
'Output': False
2 is a
'Output': False
2 is not a
'Output': True
```

The print() Statement

The print() statement is a simple way to show the output of data values to the console. Variables can be concatenated using the comma. Space is implicitly added after the comma.

```
a = 'I'
b = 'Love'
c = 'You'
print(a, b, c)
'Output': I Love You
```