2.5: OPERATORS AND OPERANDS

Contributed by Chuck Severance
Clinical Associate Professor (School of Information) at University of Michigan

Operators are special symbols that represent computations like addition and multiplication. The values the operator is applied to are called *operands*.

The operators `+` , `-` , `*` , `/` , and `**` perform addition, subtraction, multiplication, division, and exponentiation, as in the following examples:

```
20+32   hour-1   hour*60+minute   minute/60   5**2   (5+9)*(15-7)
```

There has been a change in the division operator between Python 2.x and Python 3.x. In Python 3.x, the result of this division is a floating point result:

```
>>> minute = 59
>>> minute/60
0.9833333333333333
```

The division operator in Python 2.0 would divide two integers and truncate the result to an integer:

```
>>> minute = 59
>>> minute/60
0
```

To obtain the same answer in Python 3.0 use floored (// integer) division.

```
>>> minute = 59
>>> minute//60
0
```

In Python 3.0 integer division functions much more as you would expect if you entered the expression on a calculator.

Updated 5/5/2019