

Expressions / Operators / Precedence

```
>>> 7 + 2    # addition
9

>>> 7 - 2    # subtraction
5

>>> 7 * 2    # multiplication
14

>>> 7 / 2    # division
3.5

>>> 8 / 2    # '/' always produces a 'float'
4.0

>>> 8 // 2   # '//' always produces an 'int'
4

>>> 17 // 3  # integer quotient
5

>>> 17 % 3   # integer remainder
2


>>> 2 + 3 * 4    # '*' has higher precedence than '+'
14

>>> ( 2 + 3 ) * 4 # parentheses can override precedence
20


>>> 4 - 3 - 2    # equal precedence operators applied left-to-right
-1

>>> 4 - ( 3 - 2 ) # parentheses can override precedence
3


>>> 40 / 10 * 5   # equal precedence operators applied left-to-right
20.0

>>> 40 / ( 10 * 5 ) # parentheses can override precedence
0.8
```

```
>>> 2 + 2 == 4    # '==' : are two values equal?
True

>>> 2 + 2 == 5    # '==' : are two values equal?
False


>>> answer = 2 + 2 == 2 * 2 # Boolean values can be stored in variables
>>> answer          # Boolean variables can be evaluated
True


>>> 3 != 7        # '!=' : are two values different?
True

>>> 3 != 3        # '!=' : are two values different?
False


>>> 3 < 7         # '<' : is the first value strictly less than the second?
True

>>> 3 < 3         # '<' : is the first value strictly less than the second?
False


>>> 3 > 7         # '>' : is the first value strictly greater than the second?
False

>>> 3 > 3         # '>' : is the first value strictly greater than the second?
False


>>> 3 <= 7        # '<=' : is the first value less than or equal to the second?
True

>>> 3 <= 3        # '<=' : is the first value less than or equal to the second?
True


>>> 3 >= 7        # '>=' : is the first value greater than or equal to the second?
False

>>> 3 >= 3        # '>=' : is the first value greater than or equal to the second?
True
```