

# Operator overloading

## rules

- each operator has a complementary function
- implement the function as a member or extension function
- operator precedence cannot be changed
- ❗ do not abuse operator overloading - only use it when the behaviour can be deduced intuitively

# Operator overloading

## overloadable operators

- unary operations

`+a`, `-a`, `!a`, `a++`, `a--`

- binary operations

`a + b`, `a - b`, `a * b`

`a / b`, `a % b`

`a..b`, `a in b`, `a !in b`

`a += b`, `a -= b`, `a *= b`

`a /= b`, `a %= b`

`a < b`, `a > b`

`a >= b`, `a <= b`

`a == b`, `a != b`

- invoke operator: `()`

`a()`, `a(i)`, `a(i, j)`,

`a(i_1, ..., i_n)`

- indexed access operator: `[]`

`a[i]`, `a[i_1, ..., i_n]`

`a[i] = b`, `a[i_1, i_n] = b`

- property delegation operators \*

\* will be covered on the *Delegation* section of the course