

Complex numbers example in Modula-2

```
definition module complexnumbers;  
  
  export qualified Complex, cartesian, xpart, ypart, add, multiply;  
  
  type Complex;  
  
  procedure cartesian (x, y : real) : Complex;  
  
  procedure xpart (c : Complex) : real;  
  procedure ypart (c : Complex) : real;  
  procedure add (c, d : Complex) : Complex;  
  procedure multiply (c, d : Complex) : Complex;  
  
end complexnumbers;
```

Complex numbers example in Ada

package complexnumbers is

type Complex is private;

function cartesian (x, y : real) returns Complex;

function xpart (c : Complex) returns real;

function ypart (c : Complex) returns real;

function add (c, d : Complex) returns Complex;

function multiply (c, d : Complex) returns Complex;

private

type Complex is ...

end complexnumbers;

Complex numbers example in Clu

cluster complex is xpart, ypart, add, multiply

rep = ...

create = proc (x, y : real) returns (cvt) ...

xpart = proc (c : cvt) returns real ...

ypart = proc (c : cvt) returns real ...

add = proc (c, d : cvt) returns (cvt) ...

multiply = proc (c, d : cvt) returns (cvt) ...

end complex

Complex numbers example in C++

```
class complex {  
    public:  
        complex (x, y : float) { ... };  
  
        float xpart (c : complex) { ... };  
        float ypart (c : complex) { ... };  
        complex add (c, d : complex) { ... };  
        complex multiply (c, d : complex) { ... };  
  
    private:  
        // representation of complex numbers  
        ...  
};
```