**class** Complex{

**double** real;

**double** image;

Complex() {real = 0; image = 0;}

Complex(**double** num) {real = num; image = num;}

Complex(**double** num1, **double** num2) {real = num1; image = num2;}

**public** Complex addComplex(Complex f) {real = real+f.real; image = image+f.image; **return** **this**;}

**public** Complex mulComplex(Complex f) {real = (real\*f.real)-(image\*f.image);

image = (real\*f.image)+(f.real\*image); **return** **this**;}

**public** String toString() {

String s;

**if**(real != 0 && image != 0) {

**if**(image > 0) {

**if**(image == 1)

s = real+"+i";

**else**

s = real+"+"+image+"i";

}

**else** {

**if**(image == -1)

s = real+"-i";

**else**

s = real+""+image+"i";

}

}

**else** **if**(real == 0 && image != 0) {

**if**(image == -1)

s = "-i";

**else** **if**(image == 1)

s = "i";

**else**

s = image+"i";

}

**else** **if**(real != 0 && image == 0) {

s = real+"";

}

**else**

s = "";

**return** s;

}

}

**public** **class** Test2 {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

Complex cm1 = **new** Complex();

Complex cm2 = **new** Complex(1);

Complex cm3 = **new** Complex(3, 1);

cm1.addComplex(cm2);

cm2.mulComplex(cm3);

System.***out***.println(cm1.toString());

System.***out***.println(cm2.toString());

}

}

