(1)

#include<iostream>

using std::cout;

class Complex {

double real;

double image;

public:

void setValue(double r, double i);

void addValue(double r, double i); // a=a+b

void multiply(double r, double i); // a=a\*b

void displayMessage();

};

void Complex::setValue(double r, double i) {

real = r;

image = i;

}

void Complex::addValue(double r, double i) {

real += r;

image += i;

} // a=a+b

void Complex::multiply(double r, double i) {

double temp = real;

real = temp\*r - image\*i;

image = temp\*i + image\*r;

} // a=a\*b

void Complex::displayMessage() {

cout << real << "+" << image << "i" << std::endl;

}

int main() {

Complex operation;

operation.setValue(1,3);

operation.addValue(0, 4);//let 1+3i adds 4i

operation.displayMessage();

operation.setValue(1, 3);

operation.multiply(0, 4);//let 1+3i mutiply 4i

operation.displayMessage();

system("pause");

return 0;

}

(2)

Header file:

class Triangle {

double a, b, c;

public:

Triangle();

Triangle(double, double, double);

double Area();

friend bool operator>(Triangle, Triangle);

};

Source-code flie:

#include<iostream>

#include"Triangle.h"

using std::cout;

using std::endl;

int main() {

Triangle a(1,2,4);

Triangle b(2, 4, 6);

if (a > b)

cout << "the area of triangle a is larger than that of triangle b";

else

cout << "the area of triangle b is larger than that of triangle a";

system("pause");

}

Triangle::Triangle() {

cout << "please enter the side length of a triangle";

}

Triangle::Triangle(double x, double y, double z) {

a = x;

b = y;

c = z;

}

double Triangle::Area(){

double p = (a + b + c) / 2;

return p\*(p - a)\*(p - b)\*(p - c);

}

bool operator>(Triangle a,Triangle b) {

return a.Area() > b.Area();

}