多态：  
答案

#include<iostream>

using namespace std;

class Shape

{

    public:

    void printArea() const{};

};

class Circle:public Shape

{

    public:

    Circle(float a)

    {

        radius=a;

    }

    void printArea() const

    {

        cout<<3.14159\*radius\*radius<<endl;

    }

    protected:

    float radius;

};

class Rectangle:public Shape

{

    public:

    void printArea() const

    {

        cout<<length\*high<<endl;

    }

    Rectangle(float x,float y)

    {

        length=x;

        high=y;

    }

    protected:

    float length, high;

};

class Triangle:public Shape

{

    public:

    void printArea() const

    {

        cout<<(dibian\*gaoxian)/2<<endl;

    }

    Triangle(float d,float h)

    {

        dibian=d;

        gaoxian=h;

    }

    protected:

    float dibian,gaoxian;

};

int main()

{

    float i,j,k,l,m;

    cin>>i;

    cin>>j>>k;

    cin>>l>>m;

    Circle C(i);

    C.printArea();

    Rectangle R(j,k);

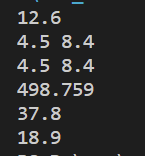
    R.printArea();

    Triangle T(l,m);

    T.printArea();

    return 0;

}

输入与输出：  


第二题：

#include<iostream>

#include<list>

#include<string>

using namespace std;

class Account

{

    public:

    virtual void display() const = 0;

    virtual void withdrawal(double amount) = 0;

};

class Savings:public Account

{

    public:

    Savings(const string& acc\_num, double bal = 0.0) : account(acc\_num), balance(bal) {}

    Savings(const char\* acc\_num) : account(acc\_num), balance(0) {}

    void deposit(double amount)

    {

        balance+=amount;

    }

    void withdrawal(double amount)

    {

        balance-=amount;

    }

    void display() const

    {

        cout<<"Savings Account:"<<account<<" = "<<balance<<endl;

    }

    protected:

    string account;

    double balance;

};

class Checking:public Savings

{

    public:

    Checking(const string& acc\_num, double bal) : Savings(acc\_num, bal) {}

    Checking(const char\* acc\_num) : Savings(acc\_num) {}

    void deposit(double amount)

    {

        balance+=amount;

    }

    void withdrawal(double amount)

    {

        balance-=amount;

    }

    void display() const

    {

        cout<<"Checking Account:"<<account<<" = "<<balance<<endl;

    }

};

int main()

{

    Savings s1("3277",3000), s2("3279", 5000);

    Checking c1("888"), c2("398", 10000);

    s1.deposit(100);     //存款

    c1.deposit(2000);

    s2.withdrawal(2500);     //取款

    c2.withdrawal(1555.5);

    list<Account\*> a;

    a.push\_back(&s1);

    a.push\_back(&s2);

    a.push\_back(&c1);

    a.push\_back(&c2);

    cout<<"There are "<<a.size()<<" accounts:\n";

    for(list<Account\*>::iterator it=a.begin(); it!=a.end(); ++it)

    {

        (\*it)->display();

    }

}

输出：  
