P2)

#include<iostream>

using namespace std;

class Shape

{

public:

int s1,s2;

void setShape()

{

cout<<"Enter s1 and s2\n"<<endl;

cin>>s1>>s2;

}

virtual void area()

{

cout<<s1\*s2<<endl;

}

};

class Triangle:public Shape

{

public:

double base;

double height;

void setTriangle()

{

cout<<"Set base and height\n";

cin>>base>>height;

}

void area()

{

cout<<"area of triangle = "<<0.5\*base\*height<<endl;

}

};

class Rectangle:public Shape

{

public:

double length;

double width;

void setRect()

{

cout<<"Set length and width\n";

cin>>length>>width;

}

void area()

{

cout<<"area of rectangle = "<<length\*width<<endl;

}

};

class Square:public Shape

{

public:

double side;

void setSquare()

{

cout<<"Set side \n";

cin>>side;

}

void area()

{

cout<<"area of square = "<<side\*side<<endl;

}

};

int main()

{

Shape \*bptr;

Triangle t1;

Rectangle rec1;

Square s1;

t1.setTriangle();

rec1.setRect();

s1.setSquare();

bptr=&t1;

bptr->area();

bptr=&rec1;

bptr->area();

bptr=&s1;

bptr->area();

return 0;

}

OUTPUT:

