//Lab Exercise 3

package P1;

abstract public class Shape{

    public String shape;

    public String **getShape**(){

        return "";

    }

    abstract public double **getArea**();

}

package P2;

import P1.Shape;

import java.util.Scanner;

public class Rectangle extends Shape{

    double length;

    double breadth;

    public **Rectangle**(){

        Scanner sc =new **Scanner**(System.in);

        System.out.**println**("Enter Length");

        length=sc.**nextDouble**();

        System.out.**println**("Enter Breadth");

        breadth=sc.**nextDouble**();

        shape="Rectangle";

    }

    public **Rectangle**(int length,int breadth){

        this.length=length;

        this.breadth=breadth;

        shape="Rectangle";

    }

    public String **getShape**(){

        return shape;

    }

    public double **getArea**(){

        return length\*breadth;

    }

}

package P3;

import java.util.Scanner;

import P1.Shape;

public class Circle extends Shape{

    double radius;

    public **Circle**(){

        Scanner sc=new **Scanner**(System.in);

        System.out.**println**("Enter Radius of circle");

        radius = sc.**nextDouble**();

    }

    public **Circle**(double radius){

        this.radius=radius;

    }

    public double **getArea**(){

        return (3.14159\*radius\*radius);

    }

     public String **getShape**(){

        return shape;

    }

}

import P1.Shape;

import P2.Rectangle;

import P3.Circle;

import java.util.Scanner;

public class Driver1{

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

        Shape s1;

        Scanner scan=new **Scanner**(System.in);

        System.out.**println**("1: Rectangle , 2 Circle");

        int op= scan.**nextInt**();

        choice:{

            switch (op){

                case 1:{

                    s1=new **Rectangle**();

                    System.out.**println**(s1.**getArea**());

                    break;

                }

                case 2:{

                    s1=new **Circle**();

                    System.out.**println**(s1.**getArea**());

                    break;

                }

            }

        }

    }

}

OUTPUT



