package pika.java.study.pract;  
import java.util.Scanner;  
public class week14\_task1 {  
 public static void main(String[] args) {  
 ComparableCircle C1 = new ComparableCircle(6.8); //创建一个设定值对象  
 System.*out*.println("请输入想要比较的对象的半径值：");  
 Scanner scanner = new Scanner(System.*in*); //创建一个输入值对象  
 double input = scanner.nextDouble();  
 ComparableCircle C2 = new ComparableCircle(input);  
 System.*out*.println("两者是否相等：");  
 System.*out*.println(C1.equals(C2));  
 System.*out*.println("两者具体大小情况：（相等为0，设定值大于输入值为1，小于为-1）");  
 System.*out*.println(C1.compareTo(C2));  
 ComparableCircle C3 = (ComparableCircle)C1.clone(); //克隆对象  
 ComparableCircle C4 = (ComparableCircle)C2.clone(); //克隆对象  
 System.*out*.println("克隆后---------------------");  
 System.*out*.println("两者是否相等：");  
 System.*out*.println(C3.equals(C4));  
 System.*out*.println("两者具体大小情况：（相等为0，设定值大于输入值为1，小于为-1）");  
 System.*out*.println(C3.compareTo(C4));  
 if(C1.compareTo(C2) == C3.compareTo(C4))  
 System.*out*.println("克隆正确完成！");  
 }  
}  
class Circle extends GeometriObject{  
 private double radius;  
 public Circle(){}  
 public Circle(double radius){  
 this.radius = radius; }  
 public Circle(double radius,String color,boolean filled){  
 this.radius = radius;  
 setColor(color);  
 setFilled(filled); }  
 public double getRadius(){  
 return radius; }  
 public void setRadius(double radius){  
 this.radius = radius; }  
 public double getArea(){  
 return radius\*radius\*Math.*PI*; }  
 public double getDiameter(){  
 return 2\*radius; }  
 public double getPerimeter(){  
 return 2\*radius\*Math.*PI*; }  
 public void PrintCircle(){  
 System.*out*.println("The circle is created " + getDateCreated() + "and the radius is " + radius); }  
}  
class ComparableCircle extends Circle implements Cloneable,Comparable<ComparableCircle>{  
 public ComparableCircle(){} //ComparableCircle无参构造  
 public ComparableCircle(double a){  
 setRadius(a); } //ComparableCircle含参构造  
 public boolean equals(ComparableCircle a){ //比较是否相等的equals方法  
 return this.getArea()==a.getArea();}  
 public int compareTo(ComparableCircle a) //Cmparable接口，相等为0，设定值大于输入值为1，小于为-1  
 {  
 if(this.getArea()-a.getArea() > 0) return 1;  
 else if(this.getArea()-a.getArea() < 0) return -1;  
 else return 0; }  
 public Object clone(){ //Cloneable接口，克隆对象  
 try{  
 return super.clone(); }  
 catch (CloneNotSupportedException ex){  
 return null; } }  
}  
class GeometriObject { //课本GeometriObject类  
 private String color = "white";  
 private boolean filled;  
 private java.util.Date dateCreated;  
 public GeometriObject(){  
 dateCreated = new java.util.Date(); }  
 public GeometriObject(String color,boolean filled){  
 this.color = color;  
 this.filled = filled; }  
 public String getColor(){  
 return color; }  
 public void setColor(String color){  
 this.color = color; }  
 public boolean isFilled() {  
 return filled; }  
 public void setFilled(boolean filled) {  
 this.filled = filled; }  
 public java.util.Date getDateCreated(){  
 return dateCreated; }  
 public String toString(){  
 return "created on " + dateCreated + "\ncolor:" + color + " and filled: " + filled; }  
}