

### Problem 13.1

<b>GeometricObject</b>
-color:String -filled:boolean -date:Created:java.util.Date
#GeometricObject() #GeometricObject(color:string, filled:boolean) +getColor():String +setColor(color:String):void +isFilled():boolean +setFilled(filled:boolean):void +getDateCreated():java.util.Date +toString():String +getArea():double +getPerimeter():double

<b>Triangle</b>
-side1:double -side2:double -side3:double
+Triangle +Triangle(side1: double, side2:double, side3:double) +getArea():void +getPerimeter():void +toString():String

### Problem 13.5

<b>&lt;&lt;interface&gt;&gt; java.lang.comparable</b>
+ compareTo (obj: Object): int

<b>GeometricObject</b>
-color:String -filled:boolean -date:Created:java.util.Date

```

#GeometricObject()
#GeometricObject(color:string, filled:boolean)
+getColor():String
+setColor(color:String):void
+isFilled():boolean
+setFilled(filled:boolean):void
+getDateCreated():java.util.Date
+toString():String
+getArea():double
+getPerimeter():double
+compareTo (obj: GeometricObject): int
+max(obj1: GeometricObject, obj2: GeometricObject): GeometricObject

```

Circle	Rectangle
-radius: double	-width: double -height: double
+Circle() +Circle(radius: double) +Circle(radius: double, color: string, filled: boolean) +getRadius: double +setRadius(radius: double): void	+Rectangle() +Rectangle(width: double, height: double) +Rectangle(width: double, height:double, color:string, filled:boolean) +getWidth():double +setWidth(width: double): void +getHeight(): double +setHeight(height: double): void

### Problem 13.7

Colorable	GeometricObject
Attributes	Attributes
Operations +howToColor()	Operations +GeometricObject()

Square
Attributes
Operations +Square()

Operations implemented from colorable  
+void howToColor()

### Problem 13.9

<b>GeometricObject</b>
-color:String -filled:boolean -date:Created:java.util.Date
#GeometricObject() #GeometricObject(color:string, filled:boolean) +getColor():String +setColor(color:String):void +isFilled():boolean +setFilled(filled:boolean):void +getDateCreated():java.util.Date +toString():String +getArea():double +getPerimeter():double

<b>Circle</b>
-radius: double
+Circle() +Circle(radius: double) +Circle(radius: double, color: string, filled: boolean) +getRadius: double +setRadius(radius: double): void +getDiameter(): double

<b>ComparableCircle</b>
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### Problem 13.11

<b>Class GeometricObject</b>
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<b>&lt;&lt;interface&gt;&gt;</b>
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<b>Comparable</b>
+CompareTo(obj:Object):int

<<interface>> <b>Cloneable</b>
+object clone() throws CloneNot supported Exception

<b>Octagon class</b>
Attributes
Operations +Octagon() +Octagon(double side) +void setSide(double side) +double getSide() +double getArea() +double getPerimeter()