```java
package asoo;

public abstract class TwodShape {
private double Width;
private double height;
private String name ;


TwodShape(){
  Width=height=0;
  name ="null";
   }
TwodShape(String n,double Width,double height ){
  this.Width=Width;
  this.height=height;
  name=n;
   }
 TwodShape(double a,String n){
  Width=height=a;
  name=n;
}
// using object _call by reference
TwodShape(TwodShape obj){
  Width=obj.Width;
  height=obj.height;
  name=obj.name;

}
public double getWidth() {
  return Width;
}
public void setWidth(double width) {
  Width = width;
}
public double getHeight() {
  return height;
}
public void setHeight(double height) {
  this.height = height;
}
public String getName() {
  return name;
}
public void setName(String name) {
  this.name = name;
}
```

```
 void showDim() {
   System.out.println(" width and height "+ Width +" "+ height);
 }
 abstract double area();
}
```

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```
package asoo;

public class Triangle extends TwodShape{
private String styel;
Triangle (){
  super();
  styel="null";
}
Triangle(String style ,double w,double h){
  super("tringle",w,h);
  this.styel=style;
}
Triangle(double a){
  super(a,"tringle");
  styel="isosceless";
}
Triangle(Triangle obj){
  super(obj);
  styel=obj.styel;
}
double area() {
  return getHeight() *getWidth()/2;
}
void showDim() {
  System.out.println(" in triangle style : "+styel );
}
}
```

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```
package asoo;

public class Rectangle extends TwodShape{
       Rectangle(){
         super();
       }
```

```
    Rectangle(double w,double h){
    super("rectangle",w, h );

    }
    Rectangle(double h){
      super(h, "rectiangle");
    }
    Rectangle(Rectangle ob){
      super(ob);
    }
    boolean isequle() {
      if(getHeight() == getWidth()) {
        return true;
      }return false;

    }
    double area() {
      return getHeight()*getWidth();
    }
  }
```

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```
package asoo;

public class program {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

        TwodShape arryeshep[]=new TwodShape[4] ;

          arryeshep[0]=new Triangle("rigth",4.0,4.0);
          arryeshep[1]=new Rectangle(10);
          arryeshep[2]=new Rectangle(10,4);
          arryeshep[3]=new Triangle(7.0);

          for(TwodShape h:arryeshep) {
            System.out.println("object "+h.getName()+"\n"+h.area());
            System.out.println();

          }
        }
        }
```