

CODE:

```
abstract class shape{
    double x;
    double y;
    shape(double x,double y){
        this.x=x;
        this.y=y;
    }
    abstract double printArea();
}

class triangle extends shape{
    triangle(double x,double y){
        super(x,y);
    }
    double printArea(){
        System.out.println("Are of Trianglr is:");
        return (x*y)/2;
    }
}

class rectangle extends shape{
    rectangle(double x,double y){
        super(x,y);
    }
    double printArea(){
        System.out.println("Area of Rectangle:");
        return (x*y);
    }
}

class circle extends shape{
    circle(double x,double y){
        super(x,y);
    }

    double printArea(){
        System.out.println("Area of circle:");
        return (3.14*x*x);
    }
}

class shapedemo{
```

```

    public static void main(String[] args){
        circle c=new circle(10,10);
        rectangle r=new rectangle(10,20);
        triangle t=new triangle(12,14);
        shape s;
        s=c;
        System.out.println("Area="+c.printArea());
        s=r;
        System.out.println("Area="+r.printArea());
        s=t;
        System.out.println("Area="+t.printArea());
    }
}

```

Ouput:

```

C:\Users\hp\Desktop\inhrt>javac shapdemo.java
.\rectangle.java:2: error: invalid method declaration; return type required
    triangle(double x,double y){
    ^
1 error

C:\Users\hp\Desktop\inhrt>javac shapdemo.java

C:\Users\hp\Desktop\inhrt>java shapdemo
Area of circle:
Area=314.0
Area of Rectangle:
Area=200.0
Are of Trianglr is:
Area=84.0
C:\Users\hp\Desktop\inhrt>_

```