SWASTIK_week5java

```java
abstract class shape{
    int dim1,dim2;
    shape(int x, int y)
    {
        dim1=x;
        dim2=y;
    }
    shape(int z)
    {
        dim1=z;
    }
    abstract void printarea();
}
class rectangle extends shape{
    rectangle(int x, int y)
    {
        super(x,y);
    }
    void printarea()
    {
        double res=dim1*dim2;
        System.out.println("Area of the rectangle is "+ res);
    }
}
class triangle extends shape{
    triangle(int x, int y)
    {
        super(x,y);
    }
    void printarea()
    {
        double res=(.5)*dim1*dim2;
        System.out.println("Area of the triangle is " + res);
    }
}
class circle extends shape{
    circle(int x)
    {
        super(x);
    }
    void printarea()
    {
```

```java
        double res=3.14159*dim1*dim1;
        System.out.println("Area of the triangle is " + res);
    }
}
public class abst1{
        public static void main (String[] args) {
        rectangle r1= new rectangle(10,20);
        triangle t1= new triangle(10,20);
        circle c1= new circle(14);
        shape s;
        s=r1;
        s.printarea();
          s=t1;
        s.printarea();
          s=c1;
        s.printarea();
    }
}
```

```
C:\Users\admin\Desktop\1bm21cs228>javac abst1.jav

C:\Users\admin\Desktop\1bm21cs228>java abst1
Area of the rectangle is 200.0
Area of the triangle is 100.0
Area of the triangle is 615.75164

C:\Users\admin\Desktop\1bm21cs228>
```