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Lab program 4

①

```
abstract class Shape
{
  double dim1;
  double dim2;
Shape (double a, double b)
{
  dim1 = a;
  dim2 = b;
}
  abstract double area();
}
  class Rectangle extends Shape
{
Rectangle (double a, double b)
{
   Super (a, b);
}
  double area ()
{
 System.out.println ("Inside Area for rectangle :");
   return dim1 * dim2;
  }
  }
  Class Triangle extends Shape
{
  Triangle (double a, double b)
{
   super (a, b);
}
  double area ()
```

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```
{
System.out.println("inside area for Triangle:");
    return dim1 * dim2 / 2;
}
}
class Circle extends Shape
{
Circle(double a)
{
super(a, a);
}
double area()
{
System.out.println("Inside area for Circle:");
    return 3.14 * dim1 * dim1;
}
}
public class AbstractAreas
{
public static void main(String args[])
{
Rectangle r = new Rectangle(9,5);
Triangle t = new Triangle(10,8);
Circle c = new Circle(7);
Shape f = r;
System.out.println("Area is:" + Shapef.area());
Shape f = t;
System.out.println("Area is:" + Shapef.area());
Shape f = c;
System.out.println("Area is:" + Shapef.area());
}
}
```