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LAB PROGRAM-9

Q) Develop a Java Program to create an abstract class named Shape that contains two integers and an empty method named printArea(). Provide three classes named Rectangle, Triangle, and Circle such that one of the classes extends the class Shape. Each of the classes contain only method printArea(). That prints the area of given shape.

Ans:
```
import java.io.*;
import java.util.*;
abstract class Shape
{
double x,y;
Shape(double a, double b)
{
x=a;
y=b;
}
abstract void printArea();
}
class Rectangle extends Shape
 {
 Rectangle extends Shape
{
 Rectangle(double a, double b)
  {
  super(a,b);
  }
void printArea()
 {
```

```
System.out.println("Area is: "+(x*y));
}
}
class Triangle extends Shape
{
Triangle(double a, double b)
 {
 super(a,b);
 }
void printArea()
 {
 System.out.println("Area is: "+(0.5*x*y));
 }
}
class Circle extends Shape
 {
 Circle(double a, double b)
  {
  super(a,b);
  }
 void printArea()
  {
  System.out.println("Area is: "+(3.14*x*y));
}}
class Abstract_test
 {
 public static void main(String args[])
  {
  Rectangle r1 = new Rectangle(10,20);
  Triangle t1 = new Triangle(2,2);
  Circle c1 = new Circle(3,3);
```

```
r1.printArea();
c1.printArea();
c1.printArea();
}
}
```