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**1BM21CS254**

Q: develop a java program to create an abstract class named shape that contains two integers and an empty method named printarea(). Provide 3 classes named rectangle, triangle, circle such that each one of the classes extends the class shape. Each one of the classes contain only the method printarea() that prints the area of the given shape.

**Code:**

import java.util.Scanner;

abstract class shape

{

int a,b;

shape(int x,int y)

{

a=x;

b=y;

}

shape(int x)

{

a=x;

}

public void printarea();

}

class rectangle extends shape

{

rectangle(int x, int y)

{

super(x,y);

}

public void printarea()

{

System.out.println("area of rectangle is: "+(a\*b));

}

}

class triangle extends shape

{

triangle(int x, int y)

{

super(x,y);

}

public void printarea()

{

System.out.println("area of triangle is: "+(a\*b\*0.5));

}

}

class circle extends shape

{

circle(int x)

{

super(x);

}

public void printarea()

{

System.out.println("area of cirle is: "+(a\*a\*3.14));

}

}

public class absrt

{

public static void main(String args[])

{

triangle t1= new triangle(30,40);

rectangle r1= new rectangle(10,20);

circle c1= new circle(5);

t1.printarea();

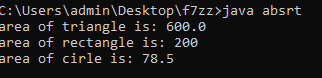
r1.printarea();

c1.printarea();

}

}

**Output:**

****