

4) Develop a Java pgm to create an abstract class named shape that contains two integers and an empty method named printArea(). provide three classes name Rectangle, Triangle and Circle such that each one of the classes extends the class shape. Each one of the classes contains only the method printArea() that prints the area of the given shape. */

```

-> import java.util.Scanner;
abstract class shape {
    abstract void printArea();
}

class Triangle extends shape {
    void printArea() {
        System.out.println("Area of Triangle");
    }
}

Scanner sc = new Scanner(System.in);
int b, h;
double res;
System.out.println("Enter base: ");
b = sc.nextInt();
System.out.println("Enter height: ");
h = sc.nextInt();
res = (0.5 * b * h);
System.out.println("Area of Triangle : " + res);

```

	area of triangle	area of rectangle	area of circle
3	b: 3	b: 2	r: 4
3	h: 4	l: 3	
	area: 6.0	area: 6.0	area: 50.24

class rectangle extends shape {

void printArea () {

System.out.println ("In area of rectangle");

Scanner Sx = new Scanner (System.in);

int b, l;

double res;

System.out.print ("enter breadth : ");

b = Sx.nextInt ();

System.out.print ("enter length : ");

l = Sx.nextInt ();

res = (b * l);

System.out.println ("area of rectangle : " + res);

}

}

class circle extends shape {

void printArea () {

System.out.println ("In area of circle : ");

Scanner Sx = new Scanner (System.in);

int r;

double res;

System.out.print ("enter radius : ");

r = Sx.nextInt ();

res = (3.14 * r * r);

System.out.println ("area of circle : " + res);

}

}

class ob-pgm4 {

public static void main (String args[]) {

triangle t = new triangle ();

rectangle r = new rectangle ();

circle c = new circle ();

t.printArea ();

r.printArea ();

c.printArea ();

}

}

area of triangle
 $b = 3$
 $h = 4$
area : 6.0.

area of rectangle
 $b = 2$
 $l = 3$
area : 6.0

area of circle
 $r = 4$
area : 50.24