**Program:4**

import java.util.Scanner;

class InputScanner

{

Scanner s;

InputScanner(){s= new Scanner(System.in);}

}

abstract class shape extends InputScanner

{

double a;

double b;

abstract void getInput();

abstract void displayArea();

}

class Rectangle extends shape

{

void getInput()

{

System.out.println("Enter dimensions of rectangle");

a=s.nextDouble();

b=s.nextDouble();

}

void displayArea()

{

System.out.println("Area of Rectangle="+(a\*b));

}

}

class Triangle extends shape

{

void getInput()

{

System.out.println("Enter dimension of triangle=");

a=s.nextDouble();

b=s.nextDouble();

}

void displayArea()

{

System.out.println("Area of triangle="+(a\*b\*0.5));

}

}

class Circle extends shape

{

void getInput()

{

System.out.println("Enter dimesions of circle(radius):");

a=s.nextDouble();

}

void displayArea(){

System.out.println("Area of circle="+(3.14\*a\*a));

}

}

class Main

{

public static void main(String args[])

{

Rectangle r=new Rectangle();

Triangle t=new Triangle();

Circle c=new Circle();

r.getInput();

t.getInput();

c.getInput();

r.displayArea();

t.displayArea();

c.displayArea();

}

}

