import java.util.Scanner;

public class Circle {

private double radius;

private String color;

public Circle() {

}

public Circle(Double radius, String color) {

if (radius > 0) {

this.radius = radius;

}

this.color = color;

}

public double getRadius() {

return this.radius;

}

public String getColor() {

return this.color;

}

public void setRadius(double radius) {

if (radius > 0) {

this.radius = radius;

}

}

public void setColor(String color) {

this.color = color;

}

public double getArea() {

return (this.radius \* this.radius \* Math.PI);

}

public String toString() {

return ("Circle[radius = " + this.radius + ", color = " + this.color + "]");

}

}

class Cylinder extends Circle {

private double height;

public Cylinder() {

}

public Cylinder(double radius, String color, double height) {

super(radius, color);

if (height > 0) {

this.height = height;

}

}

public double getHeight() {

return this.height;

}

public void setHeight(double height) {

if (height > 0) {

this.height = height;

}

}

public double getVolume() {

return super.getArea() \* height;

}

@Override

public String toString() {

return ("Cylinder[radius = " + super.getRadius() + ", color = " + super.getColor() + ", height = " + this.height

+ "]");

}

public static void main(String[] args) {

Cylinder c = new Cylinder();

Scanner sc = new Scanner(System.in);

System.out.println("nhap height ");

c.setHeight(sc.nextDouble());

System.out.println("nhap ban kinh");

c.setRadius(sc.nextDouble());

sc.nextLine();

System.out.println("nhap mau");

c.setColor(sc.nextLine());

System.out.println(c.toString());

System.out.println(c.getArea());

System.out.println(c.getRadius());

}

}