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PS C:\Users\saket\Git\CSWork\JAVA\CBT\CBT108BakshiSaket> java CBT108Driver
PASS: surfaceArea for 5.0
PASS: volume for 5.0
PASS: surfaceArea for 0.1
PASS: volume for 0.1
PS C:\Users\saket\Git\CSWork\JAVA\CBT\CBT108BakshiSaket>
```

```
public class CBT108BakshiSaket
{
    double radius;

    public void setRadius(double r)
    {
        radius = r;
    }

    public double getRadius()
    {
        return radius;
    }

    public double getSurfaceArea()
    {
        return 4.0*Math.PI*radius*radius;
    }

    public double getVolume()
    {
        return 4*Math.PI*Math.pow(radius,3) / 3.0;
    }
}

public class CBT108Driver
{
    public static void main(String[] args) {
        CBT108BakshiSaket c = new CBT108BakshiSaket();

        c.setRadius(5);
        if(isNear(c.getSurfaceArea(), 314.159265359))
            System.out.println("PASS: surfaceArea for " + c.getRadius());
        else
            System.out.println("FAIL: surfaceArea not what was expected!");
        if(isNear(c.getVolume(), 523.598775598))
            System.out.println("PASS: volume for " + c.getRadius());
        else
            System.out.println("FAIL: volume not what was expected!");
    }
}
```

```

        c.setRadius(0.1);
        if(isNear(c.getSurfaceArea(), 0.125663706))
            System.out.println("PASS: surfaceArea for " + c.getRadius());
        else
            System.out.println("FAIL: surfaceArea not what was expected!");
        if(isNear(c.getVolume(), 4.18879E-3))
            System.out.println("PASS: volume for " + c.getRadius());
        else
            System.out.println("FAIL: volume not what was expected!");
    }

    public static boolean isNear(double a, double b)
    {
        return Math.abs(a-b) < 1E-9;
    }
}

```