

```
PS C:\Users\saket\Git\CSWork\JAVA\CBT\CBT109BakshiSaket> java CBT110BakshiSaket
PASS: All tests passed.
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```

```
public class CBT110BakshiSaket
{
    public static void main(String[] args) {
        double[] inputs = {
            5,
            0.1,
            3.3,
            20000,
            8
        };
        double[] areas = {
            314.159265359,
            0.125663706,
            136.84777599,
            5026548245.743669104,
            804.247719319
        };
        double[] volumes = {
            523.598775598,
            4.18879E-3,
            150.532553589,
            3.3510321638291125E13,
            2144.660584851
        };
        int passed = 0;
        double r, a, v, A, V;

        CBT109BakshiSaket c = new CBT109BakshiSaket(0);
        for(int i = 0; i < inputs.length; i++)
        {
            r = inputs[i];
            a = areas[i];
            v = volumes[i];

            c.setRadius(r);
            A = c.getSurfaceArea();
            V = c.getVolume();
            if(isNear(A, a))
                passed++;
            else {
```

```
        System.out.print("FAIL: surfaceArea for radius " + r);
        System.out.println("-- Expected " + v + ", got " + V);
    }
}
if(passed == 2*inputs.length)
    System.out.println("PASS: All tests passed.");
}

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