**Javascript Assignment 5**

1) Write a JavaScript program to get the volume of a Cylinder, Sphere and Cone with four decimal places using objects and classes.

Create classes for volumes for each geometric shape which returns the output using the getVolume() method.

eg- to get volume of cylinder-

let obj= new Cylinder(radius,height);

obj.getVolume();

Formulas for volumes of the shapes-

1) Cylinder- Volume = πr2h

where r is the radius and h is the height of the cylinder.

2)Sphere- Volume= 4/3πr3

where r is the radius

3) Cone- Volume= πr2h/3

where r is the radius and h is the height of the cone.

class Cylinder {

    constructor(radius, height) {

        this.radius = radius;

        this.height = height;

    }

    getVolume() {

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

    }

}

class Sphere {

    constructor(radius) {

        this.radius = radius;

    }

    getVolume() {

        return (4 \*(Math.PI \* this.radius \*this.radius \* this.radius) /3);

    }

}

class Cone {

    constructor(radius, height) {

        this.radius = radius;

        this.height = height;

    }

    getVolume() {

        return ((Math.PI \* this.radius \*this.radius \* this.height)/3);

    }

}

let sphere = new Sphere(15);

let sphereVol = sphere.getVolume();

console.log(`Volume of Sphere is ${sphereVol.toFixed(4)}`);

let cylinder = new Cylinder(4,3);

let cylinderVol = cylinder.getVolume();

console.log(`Volume of Cylinder is ${cylinderVol.toFixed(4)}`);

let cone = new Cone(34,27);

let coneVol = cone.getVolume();

console.log(`Volume of Cone is ${coneVol.toFixed(4)}`);

[Running] node "c:\Users\ADMIN\Documents\c\JS\_CODE\asssign\_5.js"

Volume of Sphere is 14137.1669

Volume of Cylinder is 150.7964

Volume of Cone is 32685.1300

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