**PROGRAMS :**Write a program to implement a class ‘Solid’ with data members (radius,height).

Include different constructors to initialize data members and also include members

functions to compute volume of cylinder and cone. Include default argument for the

data member ‘radius’.

#include<iostream>

using namespace std;

class solid

{

int radius;

int height;

public:

void calcVolCylinder(){

double vol;

cout<<"The volume of the cylinder is"<<endl;

vol=3.14\*radius\*radius\*height;

cout<<vol<<endl;

}

void calcVolCone(){

double vol;

cout<<"The volume of a cone is "<<endl;

vol=0.33\*3.14\*radius\*radius\*height;

cout<<vol<<endl;

}

solid(){

radius=3;

height=5;

}

solid(int radius,int height){

this->radius=radius;

this->height=height;

}

solid(solid &asolid){

radius=asolid.radius;

height=asolid.height;

}

int getRadius(){return radius;}

int getHeigth(){return height;}

};

int main(){

solid s1,s2(7,9);

solid s3(s2);

cout<<"The radius and height of s1 is:"<<s1.getRadius()<<" and "<<s1.getHeigth()<<endl;

cout<<"The radius and height of s2 is:"<<s2.getRadius()<<" and "<<s2.getHeigth()<<endl;

cout<<"The radius and height of s3 is:"<<s3.getRadius()<<" and "<<s3.getHeigth()<<endl;

cout<<"Object s1:"<<endl;

s1.calcVolCone();

s1.calcVolCylinder();

cout<<"Object s2:"<<endl;

s2.calcVolCone();

s2.calcVolCylinder();

cout<<"Object s3:"<<endl;

s3.calcVolCone();

s3.calcVolCylinder();

return 0;

}

Input/Output:

