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 NPTEL (<https://swayam.gov.in/explorer?ncCode=NPTEL>) » Programming in Modern C++ (course)

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W5_Programming_Qs-1

Due on 2023-03-02, 23:59 IST

Complete the program with the following instructions.

- Fill in the blank at LINE-1 with appropriate initializer list,
- Fill in the blanks at LINE-2 and LINE-3 to complete the `return` statements.

The program must satisfy the given test cases.

Sample Test Cases

	Input	Output
Test Case 1	5	314, 522.025
Test Case 2	3	113.04, 112.757
Test Case 3	10	1256, 4176.2

The due date for submitting this assignment has passed.

0 out of 0 tests passed.

You scored 0.0/100.

Assignment submitted on 2023-02-25, 12:07 IST

Your last recorded submission was :

```

1 #include <iostream>
2 using namespace std;
3 class Radius{
4     public:
5         int radius;
6         Radius(int r) : radius(r) { }
7 };
8 class Volume : public Radius{
9     public:
10        Volume(int _r) : Radius(_r){}
11        double getVal(){ return 1.33 * 3.14 * radius * radius * radius; }
12 };
13 class Area : public Radius{
14     public:
15        Area(int _r) : Radius(_r){}
16        double getVal(){ return 4 * 3.14 * radius * radius; }

```

Course outline

 How does an
NPTEL
online
course
work? ()

Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

Week 4 ()

Week 5 ()

- Lecture 21 :
Inheritance:
Part 1
(Inheritance
Semantics)
(unit?
unit=62&lesson=63)



○ Lecture 22 :
Inheritance:
Part 2 (Data
Member &
Member
Function -
Override &
Overload)
(unit?
unit=62&lesson=64)

```

17 };
18 class Sphere : public Volume, public Area{
19     public:
20         Sphere(int _r) :Volume(_r),Area(_r){} //LINE-1
21
22         double getVolume(){ return Volume::getVal(); } //LINE-2
23
24         double getArea(){ return Area::getVal(); } //LINE-3
25 };
26 int main(){
27     int a;
28     cin >> a;
29     Sphere s(a);
30     cout << s.getArea() << ", " << s.getVolume();
31     return 0;
32 }

```

○ Lecture 23 :
Inheritance:
Part 3
(Constructor &
Destructor -
Object
Lifetime) (unit?
unit=62&lesson=65)

○ Lecture 24 :
Inheritance:
Part 4: Phone
Hierarchy
(unit?
unit=62&lesson=66)

○ Lecture 25 :
Inheritance:
Part 5: private
& protected
Inheritance
(unit?
unit=62&lesson=67)

○ Tutorial 05 :
Mixing C and
C++ Code:
Part 1: Issues
and
Resolutions
(unit?
unit=62&lesson=68)

● Week 5
Lecture
Material (unit?
unit=62&lesson=69)

● Quiz: Week 5 :
Assignment 5
(assessment?
name=185)

● W5_Programming_Qs-
1
(/noc23_cs50/progassignment?
name=182)



☒ W5_Programming_Qs-
2
(/noc23_cs50/progassignment?
name=183)

☒ W5_Programming_Qs-
3
(/noc23_cs50/progassignment?
name=184)

☐ Week 5
Feedback
Form (unit?
unit=62&lesson=70)

☐ Assignment 5
Solution (unit?
unit=62&lesson=71)

Week 6 ()

Week 7 ()

Week 8 ()

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Solving
Session ()**

