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

Register for Certification exam (https://examform.nptel.ac.in/2023_01/exam_form/dashboard)

Course outline

How does an NPTEL online course work? ()

Week 0 ()

Week 1 ()

Week 2 ()

Week 3 ()

Week 4 ()

Week 5 ()

Week 6 ()

Lecture 26 : Polymorphism: Part 1: Type Casting (unit?unit=72&lesson=73)

W6_Programming_Qs-1

Due on 2023-03-09, 23:59 IST

Complete the program with the following instructions.

- Fill in the blank at LINE-1 with proper access specifier.
- Fill in the blanks at LINE-2 to declare `area()` as a pure virtual function.

The program must satisfy the given test cases.

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1	3 5 7	7.5 153.86	7.5 153.86	Passed

The due date for submitting this assignment has passed.

1 out of 1 tests passed.

You scored 100.0/100.

Assignment submitted on 2023-02-28, 20:30 IST

Your last recorded submission was :

```
#include<iostream>
using namespace std;
class Shape{
     protected:     //LINE-1
        double ar;
    public:
       virtual void area() = 0;      //LINE-2
        void show(){
            cout << ar << " ";
        }
};

class Triangle : public Shape{
    int h, w;
    public:
        Triangle(int a, int b) : h(a), w(b){}
        void area(){
            ar = 0.5*h*w;
        }
};
class Circle : public Shape{
    int r;
    public:
        Circle(int a) : r(a){}
```

```
25          void area(){
26              ar = 3.14*r*r;
27          }
28  };
29  int main(){
30      int w,h,r;
31      cin >> w >> h >> r;
32      Shape *s1 = new Triangle(h,w);
33      Shape *s2 = new Circle(r);
34      s1->area();
35      s2->area();
36      s1->show();
37      s2->show();
38      return 0;
39  }
```

(/noc23_cs50/progassignment?name=188)

Week 6 Feedback Form (unit?unit=72&lesson=190)

Assignment 6 Solution (unit?unit=72&lesson=81)

Week 7 ()

Week 8 ()

Download Videos ()

Books ()

Transcripts ()

Problem Solving Session ()