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[NPTEL \(https://swayam.gov.in/explorer?ncCode=NPTEL\)](https://swayam.gov.in/explorer?ncCode=NPTEL) » **Programming in C++ (course)**
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## W7\_Programming-Qs3

**Due on 2020-11-05, 23:59 IST**

Consider the following program. Fill in the blank at LINE-1, LINE-2, and LINE-3 with appropriate inheritance type such that it satisfies the given test cases.

Private Test cases used for evaluation

Input Expected Output Actual Output Status

Test Case 1

1  
5

0 16 32 16

0 16 32 16

Passed

The due date for submitting this assignment has passed.

1 out of 1 tests passed.

You scored 100.0/100.

**Assignment submitted on 2020-11-05, 23:28 IST**

Your last recorded submission was :

```

1 #include <iostream>
2 using namespace std;
3
4 class A {
5 public:
6     A(int i = 0) { cout << i << " "; }
7     void print(int i){ cout << i << " "; }
8 };
9 class B : virtual public A{ // LINE-1 : Inherit from class A
10 public:
11     B(int i = 0) : A(++i) { print(i); }
12 };
13 class C : virtual public A { // LINE-2 : Inherit from class A
14 public:
15     C(int i = 0) : A(++i) { print(i); }
16 };
17
18 class D : public C,public B{ // LINE-3 : Inherit from class B and C
19 public:
20     D(int i = 0) : B(i * 2), C(++i) { print(i); }
21 };
22

```

### Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Module 31 :  
Virtual Function  
Table (Lecture  
46) (unit?  
unit=80&lesson=81)

Module 32 : Type  
Casting and Cast  
Operators : Part I  
(Lecture 47)

(unit?  
unit=80&lesson=82)

- Module 33 : Type Casting and Cast Operators : Part II (Lecture 48)

(unit?  
unit=80&lesson=83)

- Module 34 : Type Casting and Cast Operators : Part III (Lecture 49)

(unit?  
unit=80&lesson=84)

- Module 35 : Multiple Inheritance (Lecture 50)

(unit?  
unit=80&lesson=85)

- Module 35 : Multiple Inheritance (Contd.) (Lecture 51)

(unit?  
unit=80&lesson=86)

- Lecture Materials

(unit?  
unit=80&lesson=87)

- Quiz : Assignment 7 (assessment?)

(name=170)

- W7\_Programming-Qs1

(/noc20\_cs57/progassignment?  
name=171)

- W7\_Programming-Qs2

(/noc20\_cs57/progassignment?  
name=172)

- W7\_Programming-Qs3

(/noc20\_cs57/progassignment?  
name=173)

- W7\_Programming-Qs4

(/noc20\_cs57/progassignment?  
name=174)

```
23 int main() {  
24     int i;  
25     cin >> i;  
26  
27     D obj(i);  
28  
29     return 0;  
30 }
```

☐ Feedback For  
Week 7 (unit?  
unit=80&lesson=88)

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**Week 8**

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**Assignment  
Solution**

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**Books**

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**Live Interactive  
Session**

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**Programming Test  
(11th Dec):  
Session-1  
(10.00AM -  
11.00AM)**

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**Programming Test  
(11th Dec):  
Session-2 (8.00PM  
- 9.00PM)**