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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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W4_Programming-Qs1

Due on 2020-10-15, 23:59 IST

Consider the following program. Fill in the blanks in `LINE-1` for forward declaration and in `LINE-2` to make available private variable of class B to the member functions of class A such that it will satisfy sample input and output.

Private Test cases used for evaluation

Input	Expected Output	Actual Output	Status	
Test Case 1	7	12 2	12 2	Passed

The due date for submitting this assignment has passed.

1 out of 1 tests passed.

You scored 100.0/100.

Assignment submitted on 2020-10-15, 19:06 IST

Your last recorded submission was :

```

1 #include <iostream>
2
3 using namespace std;
4
5
6 class B;           // LINE-1
7
8
9
10 class A {
11     int a_ = 0;
12
13 public:
14     A(int x) : a_(x) { }
15     int addB(B&);
16     int subtractB(B&);
17 };

```

Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

Week 4

- Module 16 :
Static Members
(Lecture 31)
(unit?
unit=56&lesson=57)
- Module 17 :
Friend Function
and Friend Class
(Lecture 32)
(unit?
unit=56&lesson=58)
- Module 18 :
Overloading
Operator for User
Defined Types:

Part - I (Lecture
33) (unit?
unit=56&lesson=59)

● Module 19 :
Overloading
Operator for User
Defined Types:
Part - II (Lecture
34) (unit?
unit=56&lesson=60)

● Module 20 :
Namespace
(Lecture 35)
(unit?
unit=56&lesson=61)

○ Lecture Materials
(unit?
unit=56&lesson=62)

● Quiz :
Assignment 4
(assessment?
name=136)

● **W4_Programming-
Qs1**
(/noc20_cs57/progassignment?
name=142)

● W4_Programming-
Qs2
(/noc20_cs57/progassignment?
name=143)

● W4_Programming-
Qs3
(/noc20_cs57/progassignment?
name=144)

● W4_Programming-
Qs4
(/noc20_cs57/progassignment?
name=145)

○ Feedback For
Week 4 (unit?
unit=56&lesson=63)

Week 5

Week 6

Week 7

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```

24
25
26
27 class B {
28
29     int b_ = 5;
30
31 public:
32
33     friend class A;           // LINE-2
34
35 };
36 int A::addB(B &b) {
37     return (a_ + b.b_);
38 }
39
40 int A::subtractB(B &b) {
41     return (a_ - b.b_);
42 }
43
44 int main() {
45     int x;
46     cin >> x;
47
48     A t1(x);
49     B t2;
50
51     cout << t1.addB(t2) << " " << t1.subtractB(t2);
52
53     return 0;
54 }

```

Text Transcripts

**Assignment
Solution**

Books

**Live Interactive
Session**