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Time left 0:16:53

Question 2

Not yet answered

Marked out of 15.00

a) Given an incomplete program segment, complete the program based on the questions stated in the comments.

IMPORTANT: Please write a C ++ statement WITHOUT ANY WHITE SPACE unless it is absolutely necessary. Example:
float x=a+b;

Note: You are allowed to use ONLY a single statement to answer each question.

//Forward declaration: Declare a class named Test2

```
class Test1 {
    int num;
public:
    Test1(int = 111);
    void func1();
    Test1 operator--(int);
    operator float();
    friend class Test2;
};
```

```
class Test2 {
    int num;
public:
    Test2() { num = 555; }
    void func1(Test1);
    friend void func1(Test2);
    friend ostream& operator<<(ostream&, const Test2&);
};
```

//Write a function header and complete the function definition for the constructor of Test1 class

```
{
```

```
    = num;
}
```

//Write a function header for the func1 function in Test1 class

```
{
    cout << "Hello from func1 in Test1 class: " << num << endl;
}
```

//Write a function header and complete the function definition for the overloaded postfix operator--

```
{
    Test1 t(num--);
```

```
}
```

```
//Write a function header for the type conversion function in Test1 class
```

```
{
    return num / 2.5;
}
```

```
//Write a function header for the func1 function in Test2 class
```

```
{
    cout << "Hello from func1 in Test2 class: " << t1.num << endl;
}
```

```
//Write a function header for the friend func1 function in Test2 class
```

```
{
    cout << "Hello from standalone func1 function: " << t2.num << endl;
}
```

```
//Write a function header and complete the function definition for the overloaded
operator<<
```

```
(ostream& ost, const Test2& t2) {
```

```
<< "Hello from overloaded operator<<: " << t2.num << endl;
```

```
}
```

b) Assume the main function of the program is as below. What is the output of the program after the above program segment in (a) has been completed?

```

1  #include <iostream>
2  #include <iomanip>
3  using namespace std;
4
5  //Insert program segment in (a) here
6
7  int main() {
8      Test1 o1(999), o2;
9      Test2 o3;
10     cout << o3;
11     o2.func1();
12     o2 = o1--;
13     o1.func1();
14     o3.func1(o2);
15     func1(o3);
16     float numf = o2;
17     cout << fixed << setprecision(2)
18         << "Hello from main function: " << numf << endl;
19     return 0;
20 }

```

Output	

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