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Output of C++ Program | Set 5



Difficulty Level: Rookie

Predict the output of below C++ programs.

Question 1

```
#include<iostream>
using namespace std;

class Test {
    int value;
public:
    Test(int v);
};

Test::Test(int v) {
    value = v;
}

int main() {
    Test t[100];
    return 0;
}
```

Output:

Compiler error

The class Test has one user defined constructor “Test(int v)” that expects one argument. It doesn’t have a constructor without any argument as the compiler doesn’t create the default constructor if user defines a constructor (See [this](#)). Following modified program works without any error.

```
#include<iostream>
using namespace std;

class Test {
    int value;
```



```

public:
    Test(int v = 0);
};

Test::Test(int v) {
    value = v;
}

int main() {
    Test t[100];
    return 0;
}

```


Question 2

```

#include<iostream>
using namespace std;
int &fun() {
    static int a = 10;
    return a;
}

int main() {
    int &y = fun();
    y = y +30;
    cout<<fun();
    return 0;
}

```

 prog.c:1:20: fatal error: iostream: No such file or directory
 #include<iostream>
 ^
 compilation terminated.

Output:

40

The program works fine because 'a' is static. Since 'a' is static, memory location of it remains valid even after fun() returns. So a reference to static variable can be returned.

Question 3

```


#include<iostream>
using namespace std;

class Test
{
public:
    Test();
}

```



```
};  
  
Test::Test() {  
    cout<<"Constructor Called \n";  
}  
  
int main()  
{  
    cout<<"Start \n";  
    Test t1();  
    cout<<"End \n";  
    return 0;  
}
```

 prog.c:1:20: fatal error: iostream: No such file or directory
#include<iostream>
^
compilation terminated.

Output:

Start
End

Note that the line "Test t1();" is not a constructor call. Compiler considers this line as declaration of function t1 that doesn't receive any parameter and returns object of type Test.

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