

## What is printed?

What is the output of the following program?

```
#include <iostream>
using namespace std;
class Point {
    int x;
    int y;
public:
    // Constructor
    Point(int i, int j);
};
Point::Point(int i = 0, int j = 0) {
    x = i;
    y = j;
    cout << "Constructor called\n";
}
int main() {
    Point t1, *t2;
    return 0;
}
```

☒ Constructor Called

☐ No output

☒ Constructor called  
☐ Constructor called

☐ Compilation Error

```
#include <iostream>
using namespace std;
class Sand {
public:
    Sand() { cout << "Sand "; }
    ~Sand() { cout << "~Sand "; }
};
class Rock {
public:
    Rock() { cout << "Rock "; }
    ~Rock() { cout << "~Rock "; }
};
class Hill : public Sand {
    Rock data_;
public:
    Hill() { cout << "Hill " << endl; }
    ~Hill() { cout << "~Hill "; }
};
int main() {
    Hill h;
    return 0;
}
```

☒ Sand Rock Hill  
~Hill ~Rock ~Sand

☐ Sand Rock Hill  
~Sand ~Rock ~Hill

☐ Sand Hill Rock  
~Rock ~Hill ~Sand

☐ None

## What is printed III?

What is the output of the following program?

```
#include <iostream>
using namespace std;
class Test {
    ~Test() { cout << "I love coding"; }
public:
    Test() { cout << "I am at your service"; }
};
int main() { Test t; }
```

☐ I love coding

☒ I am at your service  
I love coding

☐ I love coding  
I am at your service

☒ Compilation Error

What is the output of the following program?

```
#include <iostream>
using namespace std;
class Test1 {
    int x;
public:
    void show() {}
};
class Test2 {
    int x;
public:
    virtual void show() {}
};
int main(void) {
    cout << sizeof(Test1) << " ";
    cout << sizeof(Test2) << " ";
    return 0;
}
```

☒ 4 8

☐ 8 4

☐ 8 8

☒ 4 4

What is the output of the following program?

```
#include <iostream>
using namespace std;
class P {
public:
    void print() { cout << " Inside P::"; }
};
class Q : public P {
public:
    void print() { cout << " Inside Q"; }
};
class R : public Q {};
int main(void) {
    R r;
    r.print();
    return 0;
}
```

☒ Inside P::Inside Q

☐ Inside P::

☒ Inside Q

☐ Error

What is the output of the following program?

```
#include <iostream>
using namespace std;
class constructor {
    int x;
public:
    constructor(short ss) { cout << "Short" << endl; }
    constructor(int xx) { cout << "Int" << endl; }
    constructor(float ff) { cout << "Float" << endl; }
};
int main() {
    constructor c('B');
    return 0;
}
```

☐ Short

☒ Int

☐ Float

☒ Error

What is the output of the following program?

```
#include <iostream>
using namespace std;
class Test {
public:
    Test() { cout << "Hi from Test. "; }
} g;
int main() {
    cout << "You are in Main ";
    return 0;
}
```

☒ You are in Main

☐ You are in Main Hi from Test.

☒ Hi from Test. You are in Main

☐ Compilation Error

What is the output of the following program?

```
#include <iostream>
using namespace std;
class A {
public:
    A(int a) { cout << 1; }
};
void f() { A a[10]; }
int main() { f(); }
```

☐ No output is printed

☒ Compilation Error

☐ 1111111111

☐ None of Above

What is the output of the following program?

```
#include <iostream>
using namespace std;
class exam {
private:
    int x, y, z;
public:
    int testcase() {
        x = 50;
        y = 20;
        z = 30;
    }
    friend int add(exam e);
};
int add(exam e) { return e.x + e.y + e.z; }
int main() {
    exam a;
    a.testcase();
    cout << add(a);
    return 0;
}
```

☐ 0

☒ 100

☐ Compilation Error

☐ None of these

What is the output of the following program?

```
#include <iostream>
using namespace std;
class A {
public:
    virtual int func() { return 0; }
};
class B : public A {
    int func() { return 1; }
};
class C : public B {};
int main() {
    C c;
    cout << c.func();
    return 0;
}
```

☐ 0

☐ 1

☒ Compilation Error

☐ Garbage value