NetID: zeruiw2 QuizID: 68265 Score: 3 / 4 Answer Source: PrairieLearn

{{{questionNumber}}}. What will be the output of the following program?

```
class Base {
    public:
        ~Base() {cout << "Destructing Base"; }
};

class Derived : public Base {
    public:
        ~Derived() { cout<< "Destructing Derived"; }
};

int main() {
    Base* b = new Derived;
    delete b;
}
```

A. "Destructing BaseDestructing Derived"
B. Compiler error
C. [Correct Answer] [Your Answer] "Destructing Base"
D. "Destructing Derived"
E. None of the above

{{{questionNumber}}}. Consider the following class definitions:

```
class Sport{
    public:
        virtual int winner();
    private:
        int score;
};

class Volleyball: public Sport {
    public:
        int loser();
};
```

Where could the assignment `score = 20;` appear for the private variable `score`?

A. Both `winner()` and `loser()` can make the assignment.
B. `loser()` can make the assignment, but `winner()` cannot.
C. [Correct Answer] [Your Answer] `winner()` can make the assignment, but `loser()` cannot.
D. Neither `winner()` nor `loser()` can make the assignment.
E. The answer to this question cannot be determined from the given code.

{{{questionNumber}}}. What will be the output of the following program?

```
class One {
    public:
        Alpha *a1;
        One() { a1 = new Alpha(); }
        virtual ~One() { cout << "One "; delete a1; }
};

class Two : public One {
    public:
        virtual ~Two() { cout<< "Two "; }
};

class Alpha {
   public:
       ~Alpha() { cout << "Alpha "; }
};

int main() {
    One* b = new Two;
    delete b;
}
```

A. "One Alpha "
B. "One "
C. "One Alpha Two "
D. "Two Alpha One "
E. [Correct Answer] [Your Answer] "Two One Alpha "

{{{questionNumber}}}. Suppose class `sport` contains exactly one pure virtual function called `getDomain` and that class `volleyball` is a `public sport` that implements `getDomain`.

Which of the following C++ statements will certainly result in a compiler error? Make sure to read **all** options carefully.

A. [Correct Answer] `sport a; a.getDomain();`
B. It is possible that none of these will result in a compiler error.
C. [Your Answer] More than one of these will result in a compiler error.
D. `sport * a = new volleyball(); a->getDomain();`
E. `volleyball a; a.getDomain();`