

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

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

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

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

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

{{{questionNumber}}}. Suppose class `pictureRep` contains exactly one pure virtual function: the overloaded parentheses operator, `int operator() (int i, int j)`. Also suppose that class `hardPNG` is a public `pictureRep` that implements `operator()`. Which of the following C++ statements will certainly result in a compiler error? Make sure to read **all** options carefully.

- A. None of the code options will result in a compiler error.
- B. `pictureRep * a = new hardPNG; hardPNG * b; a = b;`
- C. [Your Answer] Exactly two of the code options will result in a compiler error.
- D. `hardPNG * a = new hardPNG;`
- E. [Correct Answer] `hardPNG * a = new pictureRep;`

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

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

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

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

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

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

```
class
Test{ public:
    int fun()
const; private:
double score;
};

class Midterm: public
Test { public:    int
games();
};
```

Where could the assignment `score = 90.0;` appear for the private variable `score`?

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

