1. Circle the right answer:

a) **struct** defaults to private. **class** defaults to public.  
   **True**  **False**

b) Except default access modifiers, a class is identical to a struct.  
   **True**  **False**

c) A nesting class gets automatic access to the private members of a nested class inside it.  
   **True**  **False**

d) **friend** overwrites private.  
   **True**  **False**

e) All the methods of a class are part of the class interface.  
   **True**  **False**

2. What are the 4 numbers that the code below is printing?

```cpp
int x, y;
int *px, *py;

int f ( int a, int b ) {
    static int s = *px + *py;
    x = a + s; y = b + s;
    s = x + y;
    cout << s << endl;
    return s;
}

int main() {
    x = y = 2;
    px = &x; py = &y;
    int a = 2, b = 5;
    a = f(a, b); b = f(a, b);
    cout << *px << endl << *py << endl;
}
```

3. Write a code fragment allowing you to create a vector of pointers that point to 20 C objects.

```cpp
class C {
    int a, b, c;
public:
    C (int iA, int iB, int iC) :
        a(iA), b(iB), c(iC) {}
};

vector<C*> v;
for(int i = 0; i < 20; i++)
    v.push_back(new C(i,i,i));
```

4. What is the following code fragment printing?

```cpp
struct A {
    public:
        A() { cout << "A\n"; }
};
class B : public A {
    public:
        B() { cout << "B\n"; }
};

int main() {
    if ( true ) { B b; }
    A* a = new B;
    delete a;
    return 0;
}
```