Homework 7, question (c) corrected, due 2/25

Consider the following program:

```cpp
class C {
    int X;
    static int Y;
public: C() { X = 1; }
};

int C::Y = 0;

void fun(int depth) {
    C c1;
    static C c2;
    C *p3 = new C;
    if (depth == 0) return;
    if (depth>1) {
        fun(depth-1);
    } else {
        /* (a) how many X are there at this point? */
    }
}

main() {
    fun(0);
    fun(2);
    /* (b) how many X are there at this point? */
    /* (c) how many Y are there at this point? */
}
```

When control reaches point (a), how many instances or copies of data member X are there?

When control reaches point (b), how many instances or copies of data member X are there?

When control reaches point (c), how many instances or copies of data member Y are there?