**CS-141 Scope Exercise Solutions –includes execution order**

Place variable name at top (gray area). Indicate an "d" where the variable is declared. Mark an x in boxes to indicate scope.
Can you say which variables are formal parameters(p) and which are arguments (a) (actual parameters)?
Note, there may be more than one variables with a given name. Use a separate column for each. What is the program output?

| Execution Order | | | args | scopeTest | i | b | i | n | a | b | i |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | `public class MyScopeProject {` | | | | | | | | | |
| 0 | 2 | `    public static void main(String[] args) {` | d,p | | | | | | | | |
| 1 | 3 | `        ScopeTest scopeTest = new ScopeTest();` | x | d | | | | | | | |
| 18 | 4 | `    }` | x | x | | | | | | | |
| | 5 | `}` | | | | | | | | | |
| | 6 | | | | | | | | | | |
| | 7 | `public class ScopeTest` | | | | | | | | | |
| | 8 | `{` | | | | | | | | | |
| 2 | 9 | `    public ScopeTest() {` | | | | | | | | | |
| 3 | 10 | `        int i = 10;` | | | d | | | | | | |
| 4 | 11 | `        int b = g(i);` | | | x,a | d | | | | | |
| 16 | 12 | `        System.out.println(b + i);` | | | x,a | x,a | | | | | |
| 17 | 13 | `    }` | | | x | x | | | | | |
| | 14 | | | | | | | | | | |
| 9 | 15 | `    public int f(int i) {` | | | | | d,p | | | | |
| 10 | 16 | `        int n = 0;` | | | | | x | d | | | |
| 11 | 17 | `        n = n + i;` | | | | | x | x | | | |
| 12 | 18 | `        return n - 2;` | | | | | x | x | | | |
| | 19 | `    }` | | | | | x | x | | | |
| | 20 | | | | | | | | | | |
| 5 | 21 | `    public int g(int a){` | | | | | | | d,p | | |
| 6 | 22 | `        int b = 0;` | | | | | | | x | d | |
| 7 | 23 | `        {` | | | | | | | x | x | |
| 8 | 24 | `            int i = f(a);` | | | | | | | x,a | x | d |
| 13 | 25 | `            b = b + i;` | | | | | | | x | x | x |
| 14 | 26 | `        }` | | | | | | | x | x | x |
| 15 | 27 | `        return b;` | | | | | | | x | x | |
| | 28 | `    }` | | | | | | | x | x | |
| | 29 | `}` | | | | | | | | | |