## CS1428 Lab 1: Fall 2020

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Lab Sectio	n:	LAB 17	

Write your name at the top of this sheet and your program in a block or inline comment. Answer the following questions and turn in this sheet before the end of class. You may use the pre-lab, your book or internet resources to assist you.

1. (10 pts) Evaluate the following expressions as a computer would (i.e. be mindful of integer division).

1) 10 % 8	6) 2+3*0
2	2
2) 643295 % 10	7) 6.4 * 3
5	19.2
3) 16 % 5	8) 6.0 / 4
1	4.5
4) 0 % 456	9) (6+17)%2-1
0	0
5) 27/2-4	10) 14/(11/4)
9	7

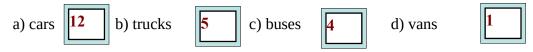
2. (4 pts) Consider the following C++ code snippet:
 int cars = 10;
 int trucks = 2;
 int buses = 1;
 int vans = 5;
 int count = 2;

 cars += count;
 trucks += trucks + buses;
 buses += 3;
 ++buses;

vans = vans / buses;

After execution, what are the values stored in each of the following variables?

**Hint:** Evaluate sequentially like the computer and use the given picture to help you keep track of the values inside each variable.



3. (6 pts) There are several syntax and logical errors with the following code snippet. The program should prompt the user for their first name and then store it into the variable first\_name. Rewrite the code so that it works correctly.

```
cout << "Please enter your first name. " << endl;
string first_name;
cin >> first_name;
```

4. (50 pts) Modify "Lab 1 Program.cpp" provided in Canvas such that the program asks the user to enter his/her age, IQ, and midi-chlorian count. Then apply the following formula to find their Jedi Level (as a decimal number) and print it to the console (screen). Do not use any libraries we have not yet learned in your solution (i.e. cmath).

```
Jedi Level = (midi-chlorians x age) / (90000 - IQ^2)
```

Sample Input/Output:

What is your midi-chlorian count?
20000
What is your age?
8
What is your IQ?
123
Your ledi Level is 2.13701

**WRITE** your name in the authorship comments at the top of the page. **UPLOAD** this pdf with your answers filled in and your source code as lab1.cpp to Canvas. Note: You might have to print this file as a pdf if you opened it in a browser (preferred Google Chrome).