Computer Science Assignment 1 Report

***Observations for Question 5***

To start with, I inputted 10 as the total number of students: 6 who preferred being at school and 4 who preferred school from home. This input produced a reasonable and logically correct output of 60% and 40% for in-person and school from home and gave the correct output stating that more prefer in person school.

After this, I tested 10 students and inputted to very large integers for the next two questions which added up to over 100. I noticed that the code had no statements to check that the sum added up to the total number surveyed. As a result, nonsensical outputs were produced in which almost 900% students preferred online school and a similar impossibly large number was produced for students who preferred school from home.

***Logic Errors that I introduced to the code***

As required by the assignment, I introduced only one logical error into the code given to us. I swapped the positions of the variables ‘pctLikeInPerson’ and ‘pctLikeAtHome’ in lines 20 and 21. When executed, the program still runs but produced the incorrect output.

***Compilation Errors that I introduced to the code***

The two compilation errors that I introduced were simple changes in syntax that make it difficult for the human syntax to be converted into machine language. For the first one, I removed the semi-colon at the end of line 21. For the second one, I changed the ‘<<’ on line 26 to ‘<’. When the program is run, XCode points out an error highlighting both line 21 and 26, citing incorrect syntax as the reason.