**CEIS 420 Week 6 Homework**

**Question 1**

Compare the dynamic binding of C++ and Java.

Answer:

**The big setup for dynamic binding is the same across both of them and the programmer will need to set up a parent and child class. However, in C++, the planned method that will be bound will need to be declared as virtual. As opposed to Java where in the child class @Override should be used when you are binding, or overriding the parent classes methods.**

**Question 2**

Explain information hiding and encapsulation. Give an example.

Answer:

**Data hiding is obscuring data for data security purposes, eg making a method or class private and only allowing a publicly accessible method in the class to interact with the protected class data. Encapsulation would be obscuring the complexity of the program, and a good example of this is to use public methods to return private data – that way you can view the data but not change it without going through the change-specific method, and not view without going through the view-specific method.**

**Question 3**

Describe the significant problem with multiple inheritances.

Answer:

**Thankfully, the language that I am preferable to, Java, does not allow this so I can avoid most of the headache. However, multiple inheritance can lead to something called the “diamond problem” where multiple instances of the original parent class is effectively present in the child’s child class.**