## Journal #2

The most significant problems were the division algorithm and handling the references in C++. Both were problems I had expected to have difficulty with. The division algorithm was simply wasted time as I had tried to find a more clever way of doing the division when the simplest, and effective, solution was old fashion long division.

The other difficulty was handling references in C++. The problem proved too difficult and I was not able to finish the assignment properly even though I had started the assignment over a week ago. Because of this, my estimate was much shorter than real-time. I ended up rewriting the assignment in C# in less than one hour with no errors.

For the next assignment I will divide the assignment into 3 parts. The first part is to design the hashing algorithm and implementation properly so as to not run into any problems. The most difficult aspect will be to be sure the implementation works as well in the program as it does on paper.

Second, I will need to develop the implementation for get\_elements. Just as the previous section, I will need to make sure the implementation works as well in the program as it does on paper.

Third, is to devise proper tests for each aspect of the implementation. The most difficult aspect will be to ensure I am testing every area of the program, and be able to determine the origin of the error based solely on the error message.

If I had a partner, I would divide the work in the following ways. One partner will work on the implementation of the basic hashset while at the same time developing the tests for those areas of the program. The other partner will implement the get\_elements method and the tests for that part of the tests. The merger of the work will be simple as it only requires the addition of a method, and the tests are implemented in a way that make the portable between programs.