## Project 1 - Personal Finance Simulator

1. What did you learn from this assignment that you didn't know before?

I learned that the monthly payment on a home mortgage can be determined before the first payment is made. I learned that there are two kinds of mortgages: fixed rate and adjustable rate. I learned that many NFL players go bankrupt despite the fact that they make millions of dollars playing football. I learned that if you pay off three percent of a loan every year, you will never pay off the loan in full because the loan amount will approach an asymptote; for this reason, an additional payment is made with each percentage payment. I learned that for down payments of less than 20% on a home, the interest rate on the home loan is increased by 0.5% due to private mortgage insurance.

- How much more debt did nfl end up paying compared to fl?
  fl paid \$51722 in debt, while nfl paid \$54653 in debt.
- 3. How many more years was nfl in debt compared to fl?

fl was in debt for 19 years, and nfl was in debt for 33 years. Nfl was in debt for 14 years more than fl.

- 4. How much more money does fl have at the end of 40 years compared to nfl? fl has \$3099282. nfl has \$1124073. fl has \$1975209 more than nfl.
- 5. You don't need to test each function to answer this question, but which decision do you think had the greatest effect on the disparity between nfl and fl?

I think fl putting their money in a mutual fund while nfl did not had the greatest effect on the disparity between their final wealth.

6. Come up with three life financial decisions (that were not mentioned in this assignment) that a non-financially literate person and a financially literate person might make differently. Specify which person would make which decision.

A fl person would put a significant portion of their salary into a safe investment, while a nfl person would not. A fl person would wait as long as possible before buying a house, while a nfl person would not. A fl person would purchase food from the grocery store and prepare meals at home while an nfl person would eat at restaurants.

7. Plot the wealth of nfl and fl using your favorite graphing software (e.g. Excel).

