Purpose: The purpose of this program was to create a polynomial object that can be multiplied by a scalar, added, subtracted, solved, taken as an input and outputted as well. It has the possibility to solve the function, as well as check if the functions were equal or not equal.

Design: The design of this project for me was to basically just worry about any and all functions to work, as in this project, such as in the output overload function, there was a mass amount of things to check for the polynomials, and while the same concept used in the other functions such as the addition and subtraction, it was still a ton of checking for degrees and stuff alike. For my scalar function, it was definitely the easiest of the functions as all it has to do is multiply coefficients by an int value and that was it.

Problems: When going to code this project I had a huge amount of problems specifically for the adding and subtracting the polynomials. However, after discovering a second counter was needed, it worked properly and everything went as planned. In the end everything worked as it should.

Things to change: If I had more time, I definitely would have liked to explore any possibilities of shortening any of my functions if possible as I felt that a lot of my functions had more code than what was necessary.