The goal of this assignment was to figure out how to read user inputs from the user and how to use those inputs. This assignment had you input three numbers and then those numbers will be used in the quadratic equation to give you two root. Due to a lack of enthusiasm, error checking was use in the form of if statements even though it wasn’t supposed to be. Without the error checking the console would give a -nan and the if statements check for whenever there is a negative square root or whenever there is a zero in the denominator. The only thing that the error checker doesn’t check for is whenever the user inputs anything other than a number.

The program was designed to first take in values for ABC and then it will check to see if the number that’s under the square root is negative or not and then if the value of A is a zero. Instead of putting both statements in one if statements, the statements were put in an if-else statement to tell the user what was the reason that that the roots could not be found. The program will also tell the user the midpoint between the two roots, considering that the program generates two roots. Whether the user input resulted in the console generating two roots or not the program will continue from there and have the user input another value, this time for x, to tell the user what the value of y(x) is equal to. After that the program will generate the derivative of y(x) and have you input another value to be plugged into y’(x) and tell you the value.

This program was not too hard to develop and it was able to be completed in one day which is way the if statements were implemented. Every value that was plugged into the program was also plugged into a calculator to double check that the math was being done right in the program and everything works the way it’s supposed to.