

Report for Assignment 2:

Quadratic Equation Solver

Name:Derek (劉哲瑋)

Number:D1262032

This code generates a quadratic equation solver which the user input integer coefficients a , b , and c of the quadratic equation then the computer will compute and output the solution of the quadratic equation.

First, I declare variables a , b , c using the long long int data type, and then I declare variables $root1$, $root2$, D , x , y using the double data type. Here, a , b , and c represent the coefficients in the quadratic equation, $root1$ and $root2$ are the two roots of the equation, D is the square root of the discriminant, x represents the coefficient of 'i' and y is equal to $-b/(2*a)$.

Then, I use a while loop to allow the user to repeatedly input values until 'a' is not equal to 0. Following that, I use conditional statements with "if ($root1 == -0$)" and "if ($root2 == -0$)" to ensure that the output is not -0.

Additionally, I employ a series of "if", "else if" and "else" conditional

statements, using 'D' to determine the text that needs to be printed.

Next, I use "if (a != 0)", "if (b != 0)" and "if (c != 0)" to determine which coefficients to print.

Finally, I use "if", "else if" and "else" conditional statements, with 'D' as the determining factor, to round the roots to four decimal places for printing.