Cramer’s Rule, Solving Systems of Equation

Numerical Computation

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Project#5

Using Cramer’s rule, we use the coefficients of the equations and get its determinant. We use a various of permutation to get different orders to get all possible determinants. Then putting them in a ratio and obtaining the solution.

Results:

Here we were given our coefficients in matrix form to better facilitate Cramer’s rule, I first needed to separate the last column since it is our b part in the equation Ax=b, since it was passed as an augmented matrix, the manipulation of the matrix was conducted first to then move on to find the determinant and get our solution. For the first matrix, our answers came out to be 3.2099, 0.2346, and 0.7160. The second Matrix was treated the same and of course different answers were obtained because the augmented argument was different, the solutions were, -0.1132, 0.0755, 1.5660. Overall Cramer’s rule worked fast with simple algebraic manipulation.

