REVIEW PROBLEMS

1. Prove that through any given set of 5 points in the plane there passes a conic curve, i.e., a curve given by the equation $ax^2 + by^2 + cxy + dx + ey + f = 0$.

2. Prove that given 3 points in the plane with distinct first coordinates, we may find a polynomial of degree 2 which interpolates these points.

3. Find the matrices of rotation by $45°$ around the x-axis, and around the y-axis, and prove that these two operations do not commute,

4. Derive the formula for the Fibonacci sequence.

5. Review all the quizzes and midterms.

6. Review all of the homework problems.