

Lesson 11:

I am writing lessons covering the sections 2.8 and 2.9 of the third edition.

Before you read those lessons, please work on the sections 2.1,2.2,2.3.

Make sure that you understand

1. How to multiply matrices when multiplication is possible using the row-column rule.
2. The properties of matrix operation as states in theorem 2 of section 2.1 including the warnings about the matrix multiplication.
3. Transpose of a matrix and its properties regarding matrix operations as proven in the theorem 3 in section 2.1.
4. Computation of the inverse of a 2x2 matrix whenever possible by the techniques outlined in the theorem 4.
5. Finding solution of the matrix equation $Ax=b$ whenever A^{-1} is available.
6. Facts about A^{-1} as outlined in the theorem 6 in section 2.2.
7. Theorem 7 in section 2.2 and the algorithm to find A^{-1} as outlined in the example 7.
8. **VERY IMPORTANT:** The Invertible Matrix Theorem in section 2.3, we shall use it in many of our proofs.

Please work on the suggested exercises in the sections 2.1,2.2, and 2.3 and post your difficulties in the discussion area.