MATH 317 Homework No. 5

Reading

Sections 3.1 and 4.1

Assignment to be handed in by Thursday October 4-th Problems in bold face will be graded

Exercises

Section 3.4: Exercise 1) c, 2) a, 3) a, 4) a, 5) a, **3) f, 4) e**

Section 4.1: Exercise **3**, 8.

Proofs

Section 3.4 **13**, **18**, **19**.

Also Prove the following (This proof will be graded as well):

Consider a matrix A and two eigenvectors $\vec{v}_1$ and $\vec{v}_2$ corresponding to two eigenvalues λ_1 and λ_2, respectively, with $\lambda_1 \neq \lambda_2$. Prove that $\vec{v}_1$ and $\vec{v}_2$ are linearly independent.