MATH 566 – Homework #10

due 15 November 2007

1) Do Exercises 5.2.2, 5.2.8(b), and 5.2.14(c).

2) Let $A$ be a real $n \times n$ matrix and let $\lambda$ be a complex eigenvalue of $A$ (i.e., the imaginary part of $\lambda$ is non-zero). Prove that $\lambda$ is also an eigenvalue of $A$. 