1. Problem 24.1

2. Let $\hat{x}$ be the solution of hermitian positive definite system $Ax = b$ via Cholesky Factorization (Algorithm 23.1, Trefethen and Bau). Let $\hat{x}$ be the exact solution to the following perturbed system: $(A + \delta A)\hat{x} = b$. Show that $\frac{\|\delta A\|_\infty}{\|A\|_\infty} \leq 3n^2\epsilon_{machine}$. You can use the error analysis for LU factorization discussed in the class.