

## Homework Assignment for Week 14

1. Section 6.2: Problems 1(a), 3(a), 5(a) (all in paper-and-pencil, no programming).
2. Section 6.5: Problems 4(a,c), 9(b), 10(b), 12(d), 13.

Problem 13 is a demonstration of the application of  $LU$  decomposition other than solving a linear system. What would be the number of operations (just count multiplications) of straight forward computation of the determinant of an  $n \times n$  matrix?

In problem 12(d), just count the number of operations to leading order.