

Homework 3**Due date: Friday, November 3**

1. Threfethen and Bau, Chapter 7, Problem 7.5
2. Threfethen and Bau, Chapter 10, Problem 10.2.
3. Threfethen and Bau, Chapter 11, Problem 11.2 part (a) only.
4. Threfethen and Bau, Chapter 11, Problem 11.3.
5. We wish to solve $Ax = b$ but the system is underdetermined so that the number of equations is smaller than the number of unknowns; that is we assume that A is m by n and has full rank but $m < n$.
 - (a) What is the dimension of the space of solutions?
 - (b) Show how to compute the unique minimum 2-norm solution using appropriately normal equations, and the QR decomposition.