Math. 640 Fall, 2018

Homework 6-7, due October 17

1–2. Exercises 18.4 and 18.11, pp. 116–117. (In 18.11, find the range by a direct method (not Theorem 18.3), so as to have something independent to "check".)

- 3. Exercise 24.3, p. 147. ("Reduced" is defined as the situation described in Theorem 24.1, or, equivalently, by Exercise 24.1.)
- 4. Exercise 25.3, p. 150.
- 5. Compare the efficiency of the "Feynman Rule" formula for calculating numerically the determinant of a 3×3 matrix (see Corollary in the notes) with your favorite other method for doing so. Do this either empirically (writing computer programs and timing them) or theoretically (counting algebraic operations).
- 6-7. Exercises 26.4 and 26.9, pp. 155-156.