## Assignment 3.

- (1) Do exercise 14, 15, 28, 30, 32 of Chap 14.
- (2) Show that  $det(A) = det(A^{tr})$  with det(A) defined by the sum over permutations. The techniques are very similar to those used in the proof of det(AB) = det(A) det(B). If you encounter difficulties, try a 3 by 3 case first by identifying each term as we did in class, see how you can introduce  $\sigma^{-1}$  in the proof. Then do the general case.