## Homework 8

Section 4.1

See pp.308-309 for 4, 5, 6.

Section 4.2

See p. 309 for 1, 2, 3, 5, 6, 7.

Write permutations  $\pi_1$ ,  $\pi_2$ , and  $\pi_4$  in ex. 1 of section 4.1 as products of disjoint cycles.

$$\pi_1 = (1 \ 3)(4 \ 6)(7 \ 9)$$

$$\pi_2 = (1 \ 9)(2 \ 8)(3 \ 7)(4 \ 6)$$

 $\pi_4 = (1 \ 9 \ 8 \ 7 \ 6 \ 5 \ 4 \ 3 \ 2)(10 \ 11 \ 12)$