Abstract Algebra 1
Exercise sheet.

March 2010

1   Assignment 1(Groups):

- Exercises page 52-55: 1, 3, 5, 7, 17, 18, 19, 26, 35.

- Computer exersice at www.d.umn.edu/ jgallian.

2   Assignment 2 (Finite groups; Subgroups):

- Exercise page 64-65: 1, 2, 3, 5, 7, 19, 23, 27, 28, 46, 49, 51, 53, 55.

- Computer exercise at www.d.umn.edu/ jgallian.

3   Assignment 3(Cyclic Groups):

- Exercises page 72-94: 1, 3, 5, 8, 9, 21, 32, 34, 62.

4   Assignment 4(Permutation Groups):

- Exercises page 113-120: 1, 2, 3, 4, 6, 9, 17, 18, 21, 25, 26.

5   Assignment 5 (Cosets and Lagrange's Theorem):

- Exercises page 149-153: 1, 2, 3, 13, 27, 31, 57.

6   Assignment 6 (Normal Subgroups and Factor Groups):

- Exercises page 193-195: 1, 2, 4, 7, 12, 13, 14, 17, 21, 55, 56, 57, 60.

7 Assignment 7 (Isomorphisms):

- Exercises page 133-136: 1, 2, 3, 4, 5.

8 Assignment 8(Group Homomorphisms):

- Exercises page 211-215: 1, 3, 5, 8, 24, 39, 40, 49.