

## Exercise #8

(範圍: Groups)

1. Prove (b) of the theorem on page 148 of lecture notes. (10%)
2. Prove (b) of the theorem on page 159 of lecture notes. (10%)
3. P. 751: 1 (only for (c), (e)). (10%)
4. P. 751: 9. (10%)
5. P. 756: 6. (20%)
6. P. 756: 15 (only  $(\mathbf{Z}_{12}, +)$  for (a)). ((a), (b): 10%; (c): 5%)
7. P. 758: 4. (10%)
8. P. 758: 5. (5%)
9. P. 758: 9 (only for (a)). (10%)