

September 15, 2010

## 18.701 Problem Set 2

This assignment is due Wednesday, September 22.

1. Chapter 2, Exercise 4.5. (*a subgroup of a cyclic group is cyclic*)
2. Chapter 2, Exercise 6.6. (*matrices conjugate in  $GL$  and  $SL$* )
3. Chapter 2, Exercise 7.6. (*equivalence relations on a set of 5*)
4. Chapter 2, Exercise 8.12. (*if cosets of  $S$  partition  $G$ ,  $S$  is a subgroup*)
5. Chapter 2, Exercise M.9. (*double cosets*)
6. Chapter 2, Exercise M.14. (*generators for  $SL_2(\mathbb{Z})$* )

MIT OpenCourseWare  
<http://ocw.mit.edu>

18.701 Algebra I  
Fall 2010

For information about citing these materials or our Terms of Use, visit: <http://ocw.mit.edu/terms>.