

**Math 221A, problem set 11**  
**Due: Mon Dec 06**  
**Last revision due: TBA**

**Problems to be turned in:** Problem x.y.z of Artin denotes problem y.z in Chapter x.

1. Artin 10.4.11(a,c,d,e).
2. Artin 10.5.6(a).
3. Artin 10.6.4(b,c). Probably best to do both (b) and (c) simultaneously, using the permutation representations to discover the irreducible representations.
4. Artin 10.6.6.
5. Artin 10.6.11(a).