Representation theory, Homework Set 5

Here is the complete list of questions for HW5, which is due on Wednesday, July 3 at 10am. (Those who have presentations that week should get the homework done before then. I've given you three weeks for this homework to give you flexibility to manage your time.)

Q1 (4 marks): Exercise 8.3.

Q2 (4 marks): Exercise 8.8.1. (Not part 2.)

Q3 (4 marks): Exercise 9.1.

Q4 (5 marks): Let G be a non-abelian group of order 99. Determine the number of conjugacy classes of G and the degree of each irreducible representation. Also determine the size of the commutator subgroup $[G, G]$.

Other recommended questions, not for handing in: Exercises 8.7, 8.10 and 9.2.