Homework 3

Due: April 20, 2005

1. §2.2: 6 , 12
2. §2.3: 3, 11, 12
3. §2.4: 9, 10
4. Classify all groups of order 1, 2, 3, 4, 5 and give their subgroup lattices.
5. Suppose we have a group whose presentation is

   $$\langle s_1, s_2 \mid s_1^2 = s_2^2 = 1, s_1 s_2 s_1 s_2 = s_2 s_1 s_2 s_1 \rangle.$$

   What group is it isomorphic to (you may assume that group lattices for groups of order less than 10 are unique)?
6. §3.1: 3, 5, 17