Math 103A Fall 2006 HW 5

HW Due 10/27/05 in class

All exercise and page numbers refer to Gallian, 6th edition.

0. These exercises are suggestions for extra practice at home (or in section) and are not to be turned in!

Gallian Chapter 9, #7, 11, 17, 37.

Gallian Chapter 10, #1, 5, 7, 31.

1. Do Gallian Chapter 9, #4, 10, 12, 14, 16, 18, 36, 70.

2. Do Gallian Chapter 10, #2, 10, 32.

Hints and comments:
#9.36: There is exactly one possible subgroup of index 2. Find it, then think about how to show it is the only one.

#9.70: Begin by writing down a set of 12 elements in $G$ that looks like they should form a group, and prove that they do using that $H$ is normal. Then you also have to prove that the 12 elements you wrote down are really all different.