HW4, due Friday October 7
Math 403, Fall 2011
Patrick Brosnan, Instructor

## Reading Assignment

Please read Chapter 2 of Herstein's book through section 2.10.

## Writing Assignement

Problems 1-7. (15 points each) Do the following problems on pages 47-49 of Herstein: 6, 12, 14, 16, 21, 29
Problem 7. (10 points) For each positive integer $n$ let $d(n)$ denote the number of positive integers dividing $n$. Show that $d(n)$ is also the number of subgroups of a cyclic group of order $n$.

## Self Study Assignment

Here are some interesting problems from pages 47-49 from Herstein to do but not turn in: 4, 15, 18, 27, 30

