

Newberger College Algebra for the Sciences Spring 05

**Homework: Intervals**

Due: Tuesday, February 1

Write your answers to the following problems clearly and neatly, making sure to follow the instructions given here about how your answer should be presented. I may deduct credit for not following the instructions. *Use a straightedge to draw your graphs.*

- (1) (5 points) Read the subsection entitled Sets and Intervals, pages 17-19, in **College Algebra, 4th edition**. Do page 22, #41-54 odd numbers only. Copy out the information given in the problems. In each problem, label the given information and parts of your answer as “interval notation,” “graph,” or “inequality.” Check your answers in the back of the book.
- (2) (5 points) Consider the interval of numbers greater than or equal to 1.7 and less than or equal to 2.2. Express this interval in the ways described below. Label your answers as you did above. (a) Write this interval in interval notation. (b) Graph this interval on the number line. (c) Write this interval as an inequality. (d) Find the midpoint and radius of this interval. Use the plus or minus notation to describe this interval (number  $\pm$  error).
- (3) (5 points) Write a paragraph in which you describe in words the four ways that we represent intervals. Make sure you begin with a topic sentence, to make a coherent paragraph. Double space.