MATH 5020/7020, Fall 2006, Dr. Beckmann
Take Home Quiz
due Tuesday, November 21

This quiz is based on Section 6.2, 6.4, and 6.5. Read these sections, do the practice problems, and also do problem 2 on page 229, Class Activity 6F, and Class Activity 6J (but do not turn these in).

0. At the top of your paper, write the statement that you have not given or received help on these quiz problems. (You MAY discuss the material in the sections with others and I encourage you to do so. Just don't discuss the quiz problems.)

1. Write $2^A \times 2^B$ as a power of 2 and explain clearly why your answer is valid for all counting numbers A and B.

2. Write $(2^A)^B$ as a power of 2 and explain clearly why your answer is valid for all counting numbers A and B.

3. The Georgia Performance Standard M8N1j states "Express and use numbers in scientific notation." Give an example of a good problem you could give to 8th graders that would require using scientific notation and that you think would be of interest to 8th graders. (You may use a problem from a text or other source or write your own problem.) Solve the problem.

4. Solve problem 1 a, b, c on page 237 of the text.

5. Describe how you could use patterns with multiplication to help 7th graders see why it makes sense that $-5 \times -2 = 10$. (See Class Activity 6J.)