MATH 4010
Problem set 5
Due date: 10/24/07

Name _____

Please attach the appropriate cover sheet to your assignment. Remember that it must be stapled if you are turning in a hard copy, and it can not be late. **To get full credit you must have neat work and show all your work – with all the necessary explanations!**

(1)

- Demonstrate this division problem $132 \div 6$ using as many models and algorithms as possible. Use base ten blocks to illustrate both partitive and measurement models.
- Write a word problem which would generate this division problem. Do try to be creative :)

(2) Using your base 4 table, blocks and number line model these:

(a) $231_4 \div 3_4$ partitive and measurment with the blocks

(b) $23_4 \div 3_4$ repeated subtraction with number line

(c) $231_4 \div 3_4$ with chip abacus.

(3) Twelve thousand six hundred people attended a golf tournament. If attendees paid \$30 a piece and were distributed equally among the 18 holes, how much revenue was collected per hole? Explain your work in **words** and diagrams. Further note which concept of division was useful here and why you chose that one.

(4) Page 185, Problem 31.

Reflection (must be typed and labelled Concepts of division) Respond to the following questions. Why might it be useful to have more than one concept of division? Using your word problems illustrate what is meant when one says that division and multiplication are inverse operations. Which concept of division is more readily accessible to children who know how to add and subtract? What are the implications of your answer for developing an understanding of division?