

**Math 570 - Homework 3**  
Due Friday, February 10, 2006

- Burton pg. 105 #4 (56 and 69 only), #6 (1225 only), #7a,b.
- Continuing problem #7, show algebraically that for any  $n$ , the number  $4o_n + 1$  is a square number. Explain why you can then conclude that  $8t_n + 1$  is a square number.
- Burton pg. 119 #4, 8, 17, 18b, 20. (For #18 and #20, recall that the average of two numbers is sometimes called the *arithmetic mean*.)