Problem Set 7

Due: Monday, February 24th

Instructions: Answer each of the following questions and provide a justification for your answer. In addition to the points assigned below, you will receive 0-2 writing points for the entire problem set.

1. a. Find the greatest common divisors of the following pairs of integers.
   i. 52134, 312
   ii. -324, 552
   b. Express the GCD's that you found in part (a) as a linear combination of the associated pairs of integers.
2. Prove that for all positive integers a, b, and c, that if $a|c$, $b|c$, and $\text{GCD}(a, b) = 1$, then $ab|c$.