

Assigned October 13, 2006

Due November 10, 2006

Name

Directions: Be sure to include in-line citations, including page numbers if appropriate, every time you use the results of discussion, a text, notes, or technology. **Only write on one side of each page.**

“The first mark of intelligence, to be sure, is not to start things; the second mark of intelligence is to pursue to the end what you have started.” – Panchatantra, c. 5th c.

Problems

1. Prove the *Chinese Remainder Theorem* Let m, n, a, b where m and n are relatively prime. Then there is an integer x such that $x = a \pmod{m}$ and $x = b \pmod{n}$.