

November 16, 2007

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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  $x = b \pmod{n}$ .