MTH 361
Quiz 1
Spring 2010

20 points possible.

1. (4 pts.) Take-home problem.

2. (4 pts.) Define **commutative**.

3. (4 pts.) Define **complete set of residues modulo** n.

4. (4 pts.) Prove: For any integer a, $a^2 \equiv 0$, 1, or 4 (mod 5).

5. (4 pts.) How many different commutative binary operations can be defined on a set of 5 elements?