Quiz Set 1
For Quiz on Thursday, September 5

Work all of the following problems. A subset of the problems will be on Quiz 1 to be given September 5. Quizzes will be graded for correctness and clarity.

Most exercises can be found in Section 1 of the textbook (*Elementary Number Theory* by U. Dudley, 2nd Edition).

- Section 1 # 2, 6, 7, 14, 15
- Graduate Students: Let a, b and $n \geq 1$ be positive integers.
  (a) Prove: If $(a, b) = 1$ and $(a, c) = 1$, then $(a, bc) = 1$.
  (b) Prove: If $(a, b) = 1$, then $(a^n, b^n) = 1$.