Abstract Algebra Chapter 2 test/quiz topics Congruence and Modular Arithmetic.

Theorems you might be asked to prove on the test

- any part of theorem 2.1
- any part of theorem 2.2
- any of theorems M1-M7 (see list passed out Feb 20)

Proofs of things that are have not been stated as theorems:

- the product of a unit and a zero divisor is a zero-divisor
- the product of a unit and a unit is a unit
- proofs that can be accomplished by simplifying in $\mathbb{Z}_n$ similar to 2.1 # 9
- proofs that can be accomplished by checking a finite number of cases similar to 2.1 # 7 or 8

Things that are not proofs:

- Solving equations by checking a finite number of inputs, similar to 2.2 # 2-8, 11, 14
- Listing the units and zero divisors in a particular $\mathbb{Z}_n$, eg. $n = 13$ or 14.
- Finding examples of equations that have no solutions or have multiple solutions (see Feb 20 handout)