Math 4108 Homework 3
Due at the beginning of class on Tuesday, January 27.

§15.7 #1, 2, 3, 5, 7, 10
§15.8 #1, 2

Notes:

7.1: The question is: which common abelian group of order 4 is the additive group underlying $\mathbf{F}_4$ isomorphic to?

7.3: You are not allowed to do any calculations at all.

7.7: A special case is *Wilson's theorem*: if p is prime then

$$(p-1)! \equiv -1 \mod p.$$

The solution to 7.7 requries almost no calculations and can be done in 2 lines.