Name: ____

Read Sections 16.1-16.2. Pay particular attention to the definition of ring, as it is more general than the one we used in Abstract Algebra I.

Reading Questions

- 1. Make sure you know the definitions of the following terms: ring, integral domain, division ring, field, subring, zero divisor, unit, characteristic of an integral domain.
- 2. Give examples of each of the following.
 - (a) A ring that is not commutative.
 - (b) A ring that does not have an identity.
 - (c) A commutative ring with identity that is not an integral domain.
 - (d) An integral domain that is not a field.
 - (e) A ring with identity that is not a division ring.
 - (f) A division ring that is not a field.
 - (g) An integral domain of characteristic 7.
 - (h) An integral domain of characteristic zero.

3. What struck you in this reading? What is still unclear? What remaining questions do you have?