

Reading Quiz §16

- [2] Give an example of a ring. Clearly state the binary operators.
- Let R be a ring with binary operators $+$, and \cdot . Determine whether the following statements are *always* true or false. If false, provide a counterexample, that is, name a ring that does not satisfy the statement.
 - [1] If $x, y \in R$, then $x + y = y + x$.
 - [1] If $x, y \in R$, then $x \cdot y = y \cdot x$.
- [1] Let R be a commutative ring with unity. Furthermore, say R is such that every nonzero element has an inverse. R is a ring (and an abelian group-twice over), but what other algebraic structure is R ?