

Answer on Question #80369 – Math – Abstract Algebra

Question

Every subring of a non-commutative ring is non-commutative.

State whether the given statement is true or false, give reason of your answer.

Solution

Let $(R, +, \cdot)$ be a non-commutative ring. If 1 is the multiplicative identity, then $(\{1\}, +, \cdot)$ is a commutative subring of $(R, +, \cdot)$.

Answer: False.