Question

If (R ,*1,*2) is a ring, then ψ : R × R → R :ψ(r1,r2) = r1 *2 r1 is a binary operation.
State whether the given statement is true or false , justify with reason.

Solution

For all $r_1 \in R$ $r_1 *_2 r_1 \in R$, then $\psi: R \times R \rightarrow R$. Hence ψ is a binary operation.

Answer: True.