

THE UNIVERSITY OF CHICAGO DEPARTMENT OF MATHEMATICS 5734 S. UNIVERSITY AVE., CHICAGO, ILL. 60637

1. Let G be a group, H a subgroup, and ϕ an automorphism of G . Let ψ be an automorphism of H . Define θ to be the automorphism of G defined by $\theta(g) = \phi(g)\psi(g)$ for $g \in H$ and $\theta(g) = \phi(g)$ for $g \notin H$. Then θ is an automorphism of G .

2. Let G be a group, H a subgroup, and ϕ an automorphism of G . Let ψ be an automorphism of H . Define θ to be the automorphism of G defined by $\theta(g) = \phi(g)\psi(g)$ for $g \in H$ and $\theta(g) = \phi(g)$ for $g \notin H$. Then θ is an automorphism of G .

3. Let G be a group, H a subgroup, and ϕ an automorphism of G . Let ψ be an automorphism of H . Define θ to be the automorphism of G defined by $\theta(g) = \phi(g)\psi(g)$ for $g \in H$ and $\theta(g) = \phi(g)$ for $g \notin H$. Then θ is an automorphism of G .

4. Let G be a group, H a subgroup, and ϕ an automorphism of G . Let ψ be an automorphism of H . Define θ to be the automorphism of G defined by $\theta(g) = \phi(g)\psi(g)$ for $g \in H$ and $\theta(g) = \phi(g)$ for $g \notin H$. Then θ is an automorphism of G .

5. Let G be a group, H a subgroup, and ϕ an automorphism of G . Let ψ be an automorphism of H . Define θ to be the automorphism of G defined by $\theta(g) = \phi(g)\psi(g)$ for $g \in H$ and $\theta(g) = \phi(g)$ for $g \notin H$. Then θ is an automorphism of G .

6. Let G be a group, H a subgroup, and ϕ an automorphism of G . Let ψ be an automorphism of H . Define θ to be the automorphism of G defined by $\theta(g) = \phi(g)\psi(g)$ for $g \in H$ and $\theta(g) = \phi(g)$ for $g \notin H$. Then θ is an automorphism of G .

7. Let G be a group, H a subgroup, and ϕ an automorphism of G . Let ψ be an automorphism of H . Define θ to be the automorphism of G defined by $\theta(g) = \phi(g)\psi(g)$ for $g \in H$ and $\theta(g) = \phi(g)$ for $g \notin H$. Then θ is an automorphism of G .

THE UNIVERSITY OF CHICAGO
DIVISION OF THE PHYSICAL SCIENCES
DEPARTMENT OF CHEMISTRY
5708 S. UNIVERSITY AVE.
CHICAGO, ILL. 60637
U.S.A.


J. DRENTH