LAGRANGE'S THEOREM – PRACTICE

Definition: If H is a subgroup of a finite group G, then the number of right (left) cosets of H in G is called the index of H in G and is denoted by $[G:H]$.

Theorem: If H is a subgroup of a finite group G, then the number of right (left) cosets of H in G, denoted by $[G:H]$, is equal to $\frac{|G|}{|H|}$.

Proof: