

2020 현대대수학I 학사 졸업시험

1. Let G be a finite group and H a subgroup of index 2. Prove that H is a normal subgroup of G .
2. Let G be a group and g an element of G . Let gG be the set of all elements of the form gx , where x is an element of G . Prove that $gG = G$.
3. Prove that every subgroup of a cyclic group is also cyclic.