

KING SAUD UNIVERSITY

QUIZ 3

COLLEGE OF SCIENCE

NAME:

MATH343-14471

DEPARTMENT OF MATHEMATICS

STUDENT ID:

Q1: Let $\varphi: G \rightarrow G'$ be a homomorphism of groups and $N \triangleleft G'$. Is $\varphi^{-1}(N) \leq G$? Is $\varphi^{-1}(N) \triangleleft G$? Justify.

Q2: Classify all finite abelian groups of order 100. How many non-isomorphic abelian groups of order 10,000?