

Math 4140 - Assignment 11

Due April 15, 2024

(7) Show that the nontrivial proper normal subgroups of D_{12} are exactly

- three subgroups of order 6,
- the derived subgroup of order 3,
- the center of order 2.

Draw the inclusions of these subgroups. Which of the subgroups of order 6 are abelian?

Normal subgroup lattice of D_{12} :

