

Math 361

Quiz 4

10 points possible.

1. (a) Find all left cosets of the subgroup $\langle \delta_1 \rangle$ of the group D_4 given by Table 2.2.

(b) Repeat part (a), but find the right cosets this time. Are they the same as the left cosets?

(c) Rewrite Table 2.2 in the order exhibited by the left cosets in part (a). Do you seem to get a coset group of order 4? If so, is it isomorphic to \mathbb{Z}_4 or to the Klein 4-group V ?

(d) Find the index of $\langle \delta_1 \rangle$ in the group D_4 .