

Reading Quiz §9 con't

1. [3] Write the multiplicative table for the factor group A_4/N where $N = \{\alpha_1, \alpha_2\}$ using the notation in table 5.1.

2. [2] True/False: If the statement is *always* true, give a *brief* explanation of why it is (not a formal proof!). If the statement is false, give a counterexample. Let G be a group and $N = \{n \in G \mid ng = gn \forall g \in G\}$

(a) $N \trianglelefteq G$

(b) If G/N is cyclic, then G is abelian.