

EXERCISES 5

0. Determine the character table of the dihedral group D_4 with 8 elements.
1. Determine the character table of the group $\mathbb{Z}/n\mathbb{Z}$.
2. Determine the character table of the group S_4 .
3. Prove that every irreducible representation of a product of groups $G \times H$ is isomorphic to the tensor product of an irreducible representation of G and an irreducible representation of H .
4. Exercises 4.3, 4.10, 4.14 from the book.