

Problem Set 1

The following exercises are common to both editions (2nd and 3rd) of “Dummit & Foote”

1. n. 1 p. 7: (d) and (f).
2. n. 15 p. 12: (a) and (c).
3. nn. 8, 9, 11, 12, 16, 32 p. 22-23

Further exercises

4. Let G be a group. For $x \in G$, show that x and x^{-1} have the same order.
5. Write the multiplication table for S_3 and the (disjoint) cycle decomposition of the elements in S_4 .