Problem Set 10
Due: Thursday, April 5

Work all of the following problems. A subset of the problems will be graded. Be sure to adhere to the expectations outlined in the *General Problem Set Guidelines Sheet.*

Unless otherwise stated, all problems can be found in the appropriate *Exercises* sections of the text (*Abstract Algebra* by D. Dummit and R. Foote, 3rd Edition).

- Section 4.4 # 6, 7, 8, 13

    - *Hints for Exercise 8:* By Exercise 1 in Section 4.2, we can interpret V_4 as the subgroup $\{1, (1\ 2)(3\ 4), (1\ 4)(2\ 3), (1\ 3)(2\ 4)\}$ of S_4. For part (c), take H to be a subgroup of V_4.

- Section 4.5 # 6, 15