

Problem Set 2

Due: Wednesday, September 12

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 7.3 # 7, 10 parts (a), (d), (e) and (f), 13, 16, 17, 34

Note: For # 7 you may assume that $\mathbb{Z} \times \mathbb{Z}$ is a ring under the usual operations of addition and multiplication.