

## MATH 428 HOMEWORK 2

DUE THURSDAY, 9/23

You are encouraged to work on the homework in groups, but the final write-up should be your own. Make sure your answers are written in grammatical english, using complete sentences. It is a good idea to proofread your work. The word “show” (and other cognates) means “provide a complete proof for”. References to “Wilson” refer to the textbook.

- (1) Wilson, Problem 2.13
- (2) Wilson, Problem 2.14
- (3) Wilson, Problem 3.5
- (4) Wilson, Problem 4.2
- (5) Show that if there are nine people at a party, then there are always either 4 people who all know each other, or three none of whom know each other. Is this still true if there are only eight people?
- (6) Wilson, Problem 5.2
- (7) Wilson, Problem 5.4. The definition of complement is on page 20.