

Homework 2, Morally Due Tue Feb 12, 2013

COURSE WEBSITE: <http://www.cs.umd.edu/~gasarch/858/S13.html>

(The symbol before gasarch is a tilde.)

1. (0 points) What is your name? Write it clearly. Staple your HW. When is the midterm (give Date and Time)? If you cannot make it in that day/time see me ASAP. Join the Piazza group for the course. The codename is cm5c858. Look at the link on the class webpage about projects. Come see me about a project. READ the note on the class webpage that say THIS YOU SHOULD READ that you haven't already read.
2. (50 points) Find a function $XXX(k)$ such that the following statement is true Use the proof of the infinite Ramsey theorem for graphs as a guide. *For all k there exists $n = XXX(k)$ such that for all 2-colorings of $\binom{[n]}{2}$ there is a homogenous set of size k .*
3. (50 points) Find a function $YYY(k)$ such that the following statement is true Use the proof of the infinite Ramsey theorem for 3-hypergraph as a guide. *For all k there exists $n = YYY(k)$ such that for all 2-colorings of $\binom{[n]}{3}$ there is a homogenous set of size k .*