Homework 8, Morally Due Tue Apr 9, 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 FINAL (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 cmsc858.
- 2. (50 points) Finish the proof of the *a*-ary Can Ramsey Theory that I did on April 2. (Look at slides. On slide 61 (or so) I say DO THE REST YOURSELF.)
- 3. (50 points) Show that

$$GER_a(k,\alpha) \le \Gamma_{O(a)}(k^{O(1)}).$$

(Try to get the constants as best you can. The O(a) may be a function of  $\alpha$  (I haven't checked it yet). The O(1) may be a function of a and  $\alpha$  (I haven't checked it yet).