Homework 6, Morally Due Tue Mar 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 cmsc858. READ the notes and slides on the class webpage on infcanramsey.
- 2. (100 points) Let $COL : {X \choose a} \to \omega$. such that

$$(\forall c)(\forall x_1,\ldots,x_{a-1})[\deg_c(\mathbf{x}_1,\ldots,\mathbf{x}_{a-1}) \le 1].$$

Show that there is an infinite rainbow set using the Ulrich method (this is the one that uses the hypergraph Ramsey Theorem).