Final
DUE Wed May 18 at 3:30PM. NO DEAD CAT!!!!!!!!!!!!!!

1. (0 points) What is your name? Write it clearly. When is the take-home midterm due?

2. (25 points) Let $R_a(k)$ be the least $n$ such that
   
   for all $\text{COL:}\binom{[n]}{a}\rightarrow[2]$ there exists a homog set of size $k$.

   Assume that Zan and Not-Zan have shown that $R_3(k) \leq 2^{100k}$ (they have not done this).

   Using this find an upper bound on $R_4(k)$ of the form $R_4(k) \leq 2^{2^d k}$.
   Give the $d$ and the proof.
3. (25 points)
4. (25 points)
5. (25 points)