

List of Topics For Midterm

1 Topics that are Might be on the Midterm

1. Infinite 2-ary Ramsey on \mathbb{N} .
2. Infinite 2-ary Ramsey on \mathbb{Z} and other orderings.
3. The Thin Set theory (the one about restricting domains so function is not onto).
4. Infinite Can Ramsey.
5. Well quasi orderings and Obstruction sets.
6. Infinite 3-ary Ramsey on \mathbb{N} .
7. Infinite a -ary Ramsey on \mathbb{N} .
8. Nonconstructive proof that $R_a(k)$ exists.
9. Finite 2-ary Ramsey Theory
10. Finite 3-ary Ramsey Theory (Skip the proof that give TOW bounds)
11. Large Ramsey.
12. a -ary Can Ramsey (we will do that on Tuesday so if it is a question on it, it will be an easy one)

2 Topics that are NOT on the Midterm

1. Using Ramsey Theory to prove programs correct.
2. Primitive Recursive Functions.
3. Goodstein Sequences
4. Useable algorithms of Vertex Cover.
5. Equivalences to AC.
6. Ramsey over the reals.
7. The Hat Game and the Hat game song.

Advice for Midterm on Next Page

3 Advice

1. Go over the HW and make sure you understand the solutions. If you use AI or a friend that's fine, BUT make sure you NOW understand the solution.
2. Go over my slides.
3. If needed, go over the recordings, but I think if you've been to class then you won't need that.
4. Make up your own problems from the course and solve them. The way to do this is to change parameters or settings and see what happens. (I did that all the time in college.)