

Problem set 5: More open and closed sets, compactness, connectedness

Math 521 Section 001, UW-Madison, Spring 2024

February 21, 2024

Please solve the following problems in a clear, complete, and concise manner. You are welcome to work together, but your write-up must be your own. Use of outside internet resources is prohibited.

*Due on paper at the beginning of class on **Wednesday, March 6th**.* Please be sure to staple your writeup.

1. Rudin 2.6-8.

Note: these are good practice for the midterm.

2. 2.12, 14-16, 19-21.

Note: these involve compactness and connectedness, which aren't on the midterm.

3. (Extra credit +1) Rudin 2.13.

4. (Honors problems) Rudin 2.22-30, due Wednesday, March 13th.