

You are expected to do the following problems to a high standard (i.e., at least well enough to be published in a textbook) for full credit. Four of these problems will be selected (by Jon) for grading, with each worth 5 points.

1. Every subspace of a normal space is normal.
2. [Baker 7.3.10] Every closed subset of a normal space is normal.
3. [Baker 8.2.2] Give a direct proof (without using Theorem 8.2.2) that every metric space is regular.
4. [Baker 8.2.4] Complete the proof of Theorem 8.2.5.