Math 131 Homework 5
Due Wednesday October 23, 2019.

You are encouraged to discuss the homework problems with other students. However, what you hand in should reflect your own understanding of the material. You are NOT allowed to copy solutions from other students or other sources. No late homeworks will be accepted.

Material covered: compactness in metric spaces (Munkres §27-28); local compactness and compactifications (§29); normal spaces and metrizability (§31-34).

1. (4 points) Munkres exercise 27.2.
2. (2 points) Munkres exercise 28.2.
3. (4 points) Munkres exercise 28.6. Does the result still hold if X is not assumed to be compact?
4. (2 points) Munkres exercise 29.1.
5. (3 points) Munkres exercise 29.3.
6. (3 points) Munkres exercise 29.6.
7. (2 points) Munkres exercise 29.8.
8. (3 points) Munkres exercise 31.2.
9. (2 points) Munkres exercise 33.3.