## Math 60440: Basic Topology II Problem Set 5

- Do the following problems from Hatcher:
  - Section 2.1, problems 20, 27, 29.
  - Section 2.2, problems 1, 2, 4.
- Do the following additional problem:
  - Let G be a finite graph such that no vertex has degree 2. Prove that any homeomorphism  $f: G \to G$  must take vertices to vertices (hint: local homology!).