Graph Isomorphism

- Read 3.1, pages 55-61
  - What is the technical definition of saying that two graphs G, H are **isomorphic**?
  - Do isomorphic graphs have the same order? size? degree sequence?
  - Can we have two graphs with the same order and size, but not isomorphic?
  - Show that two graphs are isomorphic if and only if their complements are isomorphic.
  - Can a graph be isomorphic to its complement?
  - Can we have two graphs with the same degree sequences, but not isomorphic? What if they are also both connected graphs?
  - List the various ways presented in this chapter with which we can test that two graphs are not isomorphic.
  - How do we define isomorphism for digraphs?
  - Work out exercise 3.13
  - Practice problems: 3.1, 3.2, 3.5, 3.8, 3.10
- Read 3.2, pages 63-65
  - Prove theorem 3.6: Isomorphism is an equivalence relation on graphs.
  - Work out exercise 3.18
  - Practice: 3.17, 3.19
  - Challenge: 3.16