

Math179
Introduction to Graph Theory
MW 16:30–17:45
MH 235

Instructor: Dr. Wasin So

Prerequisite: Math 42 and Math 129A

Text: *A First Course in Graph Theory*
by Gary Chartrand and Ping Zhang
(ISBN: 0486483681)

Topics:

- Basics – graph classes and operations, degree sequence, isomorphism problem
- Trees – spanning trees, matchings, and factorizations
- Eulerian and Hamiltonian graphs – connectivity
- Digraphs – tournaments, and network flows
- Planar graphs – colorings

Try these puzzles:

1. Which letter in the English alphabet can be written without lifting your pencil nor double tracing?
2. How many colors do you need to color the county map of California so that neighboring counties are of different colors?