## MATH 634, Spring 2014 HOMEWORK 6 due 5:00PM on Monday, February 24.

Background reading: Pearls in Graph Theory, Sections 2.1 and 2.2.

Follow the posted homework guidelines when completing this assignment.

Problems **6D**, **6E**, and **6P** should be typed (or written up) and handed in as class starts on Monday 2/24:

- **6D.** snark
  - spanning subgraph
  - *r*-factor of a graph
  - decomposition of a graph
  - Hamiltonian cycle
- **6E.** Is Figure 2.1.5 critical? Justify. [Don't believe everything you read!]
- **6P.** (a) Determine  $\chi(W_n)$ . Prove your claim.
  - (b) For which n is  $W_n$  critical? Prove your claim.