Introduction to Graph Theory

Section 1.4 Homework

"h"omework - Not collected

West: 1.4.9, 1.4.14, 1.4.19, 1.4.20, 1.4.22

"H"omework - Collected

West: 1.4.10, 1.4.23 (hint: think about orienting paths), 1.4.32, 1.4.34

and:

(a) Let $\mathcal{F}$ be the set of permutations of $[n]$. Represent a permutation $\sigma \in \mathcal{F}$ by the string $\sigma^{-1}(1)\sigma^{-1}(2)\ldots\sigma^{-1}(n)$. Prove that there is no universal cycle for $\mathcal{F}$ using this representation.

(b) Show that if S is the score sequence of a tournament of order n, then S does not have exactly $n-1$ distinct scores.