Graph Theory

Comments on typical mistakes for HW # 5.

2.1.27. A lot of solution by induction did not make sense and showed shortcomings in the understanding of the principle of induction. Make sure you clarify this.

2.1.47. Part (a). A proof requires that you cite the Lemma from class that "Every u, v-walk contains a u, v-path." (Alternatively, you could also give a precise proof, but that takes some lines and why waste paper and ink when you can just refer to the Lemma.) Rarely people mentioned even the fact, that this is needed.

2.3.5. Although it was not specifically stated, I wanted you to show your work with Dijkstra's Algorithm. I am sorry about not making that more clear. Proof of correctness would be required anyway, and the correct use of Dijkstra's Algorithm is a proof of correctness of the numbers you got.

2.3.14. When edge e of a cycle C is deleted from a spanning tree T, it *does matter* which other edge of C you put back in. It has to be one which goes between the two components of $T - e$. A lot of people did not specify which edge of C should be put back or gave a wrong choice.