

Last name \_\_\_\_\_

First name \_\_\_\_\_

## LARSON—MATH 556—HOMEWORK WORKSHEET 02

For proofs, write out the definitions as needed, explain your notation, and be extremely clear. The goal of a proof is to convince **other** readers of your argument. Write as if you are writing to your colleagues. Remember that no one reads minds—they only can know what you tell them.

1. Prove: For any graph  $G$ ,  $\alpha(G) + \tau(G) = |V(G)|$ .
2. Prove: For any graph  $G$ ,  $\nu(G) \leq \tau(G)$ .