

▮ 1

Show that  $\tau(G) \leq 2\text{opt}(\text{VCLP}(G))$  for all graphs  $G$  (including non-bipartite graphs).

*Proof.* From (2) we know that  $\tau(G) \leq 2\nu(G)$ . Since  $\nu(G) \leq \text{opt}(\text{MLP}(G)) \leq \text{opt}(\text{VCLP}(G))$ , it follows that  $\tau(G) \leq 2\nu(G) \leq 2\text{opt}(\text{VCLP}(G))$ . □