1. Q — Explain why every bipartite graph is perfect. (This is pretty easy.)

   A — For a graph G if the clique number $\omega(G)$ were to be > 2, its chromatic number, $\chi(G)$ will have to be > 2 (it's not possible to 2-color a traingle).

   Hence every bipartite graph is perfect ($\chi(G) = \omega(G)$).