Exercise sheet 3

a) Consider a tariff game between two large countries, as in the work of Bagwell and Staiger. Let the welfare of each country be given by $W_i(t_i, t_{-i}) = 0.125 + 0.25(t_i - t_{-i}) - t_i(t_{-i} + t_i)$ where $i \in \{home, foreign\}$. Find the optimal tariffs as a best response to the tariff set by the other country. Are tariffs strategic complements or substitutes? Determine the Nash equilibrium in tariffs, as well as the globally optimal tariff regime(s).

b) Continuing from part b), let this be a repeated game, and suppose both governments have the same discount factor. What is the critical discount factor that is required to render the symmetric cooperative outcome self-enforcing under the threat of Nash-reversion?