# Problem Set #2
# Tariffs and Quotas

1. Use the small-economy, partial equilibrium model of a tariff to answer the following questions:

    a. How does a rise in the world price of a good that is imported subject to a constant specific tariff affect the well being of various groups in the importing economy?

    b. In your answer to part (a), would the effects on any of these groups be different if the tariff were *ad valorem* instead of specific?

    c. For a given world price and a given quantity of imports with free trade, determine how the various welfare effects of a given tariff, compared to free trade, depend on the elasticities of domestic supply and domestic demand for the good.

    d. Suppose that domestic supply is perfectly elastic at a price higher than the world price. Determine the welfare effects of a tariff starting from free trade.

    e. Under the assumption of part (d), suppose that a tariff is more than large enough for domestic production to take place. What are the effects of increasing the size of that tariff even further?

2. Describe how you would find the optimal tariff of a large country whose elasticity of demand for imports is zero.

3. Starting from an equilibrium in which imports of a good into a small country are reduced from their free trade level to some level, $M_0$, by either a specific tariff, $t_0$, or by an auctioned import quota, $q_0$, compare the effects under the tariff and under the quota on i) domestic price, ii) producer welfare, iii) consumer welfare, and iv) government revenue of the following changes:

    a. An increase (shift to the right) of domestic demand;

    b. An increase (shift to the right) of domestic supply;

    c. A fall in the world price.