Assignment 5
ECON 4190-6190: International Economics & Globalization

Assume Home and Foreign countries both produce the same good.

a. Home's demand curve is D = 1250-50P, where D is quantity demanded and P is the competitive price. Home's competitive supply curve is given by MC = 4 + S/100, where S is quantity-supplied. Assuming P = MC and D=S, solve for Home's equilibrium price and quantity. *(10 points)*

b. Solve P when S=0 and when D=0 in order to find the vertical intercepts, and draw the supply and demand diagram. Solve for both consumer surplus and producer surplus. *(10 points)*

c. Foreign's demand curve is also D* = 1250-50P*, but Foreign's supply curve is given by MC* = 1 + S*/100. Assuming P* = MC* and D*=S*, solve for Foreign's equilibrium price and quantity. Draw the supply and demand diagram for Foreign, and solve for Foreign's consumer surplus and producer surplus. *(20 points)*

d. Now find the free trade equilibrium, assuming no transportation costs or tariffs, by setting P = P* and D+D* = S+S*. Solve for the free trade price, and the quantities demanded and supplied for both countries. Show your solution on your supply and demand diagrams, and solve for each country's consumer and producer surplus. How much does the total surplus in each country rise as a result of free trade? *(25 points)*

e. Home now levies an 80 cent tariff on imports from Foreign. To solve this, set P = P* + 0.80, and then set D+D* = S+S*. Simplify and substitute until you solve for both P and P*, and then solve for the quantities demanded and supplied for both countries. Show your solution on your supply and demand diagrams. Relative to the free trade equilibrium, how much does each country's consumer and producer surplus change? How much revenue is collected by Home's government? How much does total surplus (welfare) change in each country? What happens to total welfare considering both countries? *(35 points)*