Tariffs: Practice Problems

International Trade
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Question 1 Suppose the domestic demand and supply for shoes in a small open economy are given by the following equations:

$$\text{Demand: } P = 100 - 2*Q$$
$$\text{Supply: } P = 4 + Q$$

a) What is the equilibrium autarky price and quantity of shoes? In addition to your numerical answer, graphically illustrate your answer in a partial equilibrium demand and supply setting.

b) Assume the small country opens up to trade and begins importing shoes at a world price of 10. What are the levels of domestic production, domestic consumption, and imports of shoes? In addition to your numerical answer, graphically illustrate your answer in a partial equilibrium demand and supply setting.

c) Using your graph from part b), show the small open economy's total welfare improves after moving from autarky to free trade. You do not need to numerically calculate welfare but can instead use the technique of labeling areas of the graph, as done in class.

d) Assume the small country's government imposes a 20% ad valorem tariff on shoe imports. What are the levels of domestic production, domestic consumption, and imports of shoes? What is the total amount of government revenue generated from the tariff?

e) Using a new graph, illustrate the welfare effects when moving from free trade to the 20% tariff. Again, you do not need to numerically calculate welfare.

f) Numerically calculate the deadweight loss from the 20% tariff.

Question 2 Consider the 2009 tariff schedule for U.S. imports located on pages 263 and 264 of your textbook. Assume the U.S. imported the following values of selected goods from nations with MFN status:

$10 million of women's blouses from Mango
$15 million of Bulgari sunglasses
$50 million of Jameson
$300 million of Smart cars

a) Calculate the unweighted average tariff.

b) Calculate the weighted average tariff.

c) Assuming Jameson would be in an input in the production of Smart cars in the U.S., calculate the effective rate of protection on Smart cars.