

Name _____

PROBLEM SET THREE

Economics 452 International Trade Theory and Policy

1. Home's demand curve for wheat is

$$P = 10 - (1/20) Q_D.$$

Its supply curve is

$$P = 4 + (1/20) Q_S.$$

- a. Derive Home's import demand schedule (in quantity and slope-intercept form).

- b. Graph Home's import demand schedule.



- c. What would the price of wheat be in the absence of trade?

2. Now add Foreign, which has a demand curve

$$P^* = 8 - (1/20) Q_D^*.$$

and a supply curve

$$P^* = 2 + (1/20) Q_S^*.$$

a. Derive Foreign's export supply curve (in quantity and slope-intercept form).

b. Graph Foreign's export supply curve (on the same graph as above).

c. Find the price of wheat that would prevail in Foreign in the absence of trade.

d. Now allow Foreign and Home to trade with each other, at zero transportation cost. Find and graph the equilibrium under free trade. What is the world price?

e. What is the volume of trade (Home imports and Foreign exports)?

f. What is the quantity of wheat supplied and demanded in the home country under free trade?

3. Home imposes a specific tariff of $T = 1$ on wheat imports.
 - a. Find Home's tariff-ridden import demand curve, the import demand curve stated in terms of the Foreign tariff-ridden price (in quantity and slope-intercept form).

 - b. Graph Home's tariff-ridden import demand curve (on the same graph as above).

 - c. Determine and graph the effects of the tariff on the following:
 - (1) the price of wheat in each country;

 - (2) the quantity of wheat supplied and demanded in the home country;

 - (3) the volume of trade.

4. a. Determine the effect of the tariff on the welfare of the following groups:
(1) Home import-competing producers;

(2) Home consumers;

(3) the Home government;

b. Calculate the following effects of the tariff:

(1) the terms of trade gain;

(2) the consumption and production distortions;

(3) the efficiency loss;

(4) the net effect on welfare.

c. Construct a graph depicting each of these welfare effects.

