**Trade Policy 2**

**Problem 1**

Two countries, Homeric and Forence, produce smartphones. Demand for smartphones in Homeric is given by function $Q^D_H = 500 – ½*P$, and the supply function is described as – $Q^S_H = 100 + ½*P$. In Forence, the relevant demand and supply functions are as follows: $Q^D_F = 1150 − ½*P$ and $Q^S_F = 50 + 3/2*P$.

(a)Calculate the autarkic prices for smartphones in these two countries.

(b) If countries start to trade with each other, which one will be the exporter of smartphones? Determine the export supply and import demand function and find the equilibrium price and trade volume on the world market. Make the appropriate graphic illustration.

(c) Assume that the smartphone exporting country's government introduces an export subsidy of 30 for each exported unit. How will this subsidy affect the trade balance? What will be the equilibrium price on the world market, and what price will the exporter receive? How will the volume of trade change?

(d) Calculate the welfare changes in Homeric and Forence. Which country gains and which loses? Is the world as a whole gaining or losing?

**Problem 2**

Two countries, Homeric and Forence, produce cars. Demand for cars in Homeric is given by a function $D_H = 900 − 2P$ and supply $S_H = 3P – 200$. In Forence, the relevant demand and supply functions are as follows: $D_F = 1500 − 3P$; $S_F = P − 100$.

(a) Calculate autarkic prices for cars in these two countries.

(b) If countries start to trade with each other, which one will be a cars exporter? Determine the export supply and import demand function and find the equilibrium price and trade volume on the world market. Make the appropriate illustration.

(c) Suppose the government of the cars importing country decided to introduce a quantitative restriction (import quota) on imports of 300 units. How will these restrictions affect global equilibrium? What will be the equilibrium price on the market of the exporting and importing country?

(d) What welfare changes would occur after introducing an import quota? Who takes over the rent from allocation?

(e) If there are few producers in the exporting country and they can conclude a price agreement, how will this affect the export price?

(f) Count the welfare changes in Homeric and Forence. Which country gains and which loses? Is the world as a whole gaining or losing?



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**Problem 3**

The supplier on the domestic market is a domestic monopolist, and domestic demand for telecommunications services is shaped according to the main function: $q = 300 – 1/2\ p$. Marginal costs data are a function $MC(q) = 100+q$. The world price of telecommunications services is $p_w = 150$. Initially, the country does not apply any trade restrictions.

(a) What is the domestic supply of services in this situation, and what is their price?

(b) The government intends to limit foreign companies' access to the domestic market by imposing a 20% tariff on imports of these services abroad. How will the domestic supply of services change? How will domestic consumption change, and what will the price of these services be on the domestic market?

(c) What import quota could be applied to ensure that the volume of imports from foreign suppliers is the same as it appears from the tariff applied?

(d) Would a quota solution be better or worse than a tariff? Justify the answer.

(e) If the government were to eliminate imports completely, what tariff would it have to introduce? What would domestic supply, price on the domestic market and volume of domestic consumption be?

**Problem 4**

Suppose a sector in country H is monopolised. The process can describe the marginal cost function of the manufacturer: $MC = 5 + q$. The equation gives the inverted demand function on the domestic market: $P = 20 - 2q$.

(a) What is the monopolist's production volume, and at what price does it sell its product?

(b) Assume that the monopolist gains the opportunity to export his product abroad (domestic and foreign markets are separated), where there are many producers in a given sector, so that we are dealing with excellent competition, and the marginal revenue obtained on a foreign market is constant and equal to $MR_W = 12$. What will be the monopolist's total production volume after being exported? How much will it sell on the domestic market, and how much will it export? At what prices? Can we talk about price dumping in this situation? Make the appropriate illustration.

(c) Do domestic consumers feel a welfare improvement from the monopolist's entry into foreign markets? Why?