Name:

1. Suppose the two countries considered in the numerical example (with a total " $S$ " $=2,500,000$ automobiles corresponding to the figure below) in the lecture were to integrate their automobile market with a third country that on its own has a market for $3,125,000$ automobiles. Determine
a) the number of firms in the world market " $n$ "
b) the output by each firms "Q"
c) the average cost "AC"
d) price per automobile in the new integrated market after trade "P"

The information that is already available to us is:

- marginal cost "c" = 5,000 EUR
- Fixed cost "F" = 750,000,000 EUR
- responsiveness of a firm's sales to price " $b$ " $=1 / 30.000$

Relevant equations:
$-\mathrm{Q}=\mathrm{S} / \mathrm{n}$
$-\mathrm{AC}=\mathrm{F} / \mathrm{Q}+\mathrm{c}$
$-\mathrm{P}=\mathrm{c}+1 /\left(\mathrm{b}^{*} \mathrm{n}\right)$
e) Draw the respective changes on the graph below and explain two ways through which consumers can gain from trade.


## 2. Dumping:

A Chinese firms its products both at home and in the US: a domestic market in which it operates as a monopolist (demand curve: $\mathrm{D}_{\mathrm{H}} \rightarrow \mathrm{P}_{\mathrm{H}}=7-\mathrm{Q}$ ) and its foreign market where it faces perfect competition (demand curve: $\mathrm{D}_{\mathrm{F}} \rightarrow \mathrm{MR}_{\mathrm{F}}=\mathrm{P}_{\mathrm{F}}=3$ ). The marginal cost of production for this firm is $\mathrm{MC}=\mathrm{Q} / 3$.

Solve and show in graph the following:
a) The marginal revenue of the firm in its domestic market
b) Total production:
c) Quantity exported:
d) Domestic sales:

