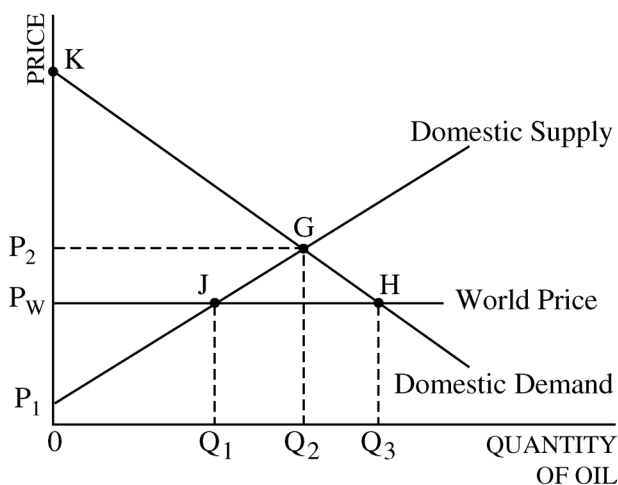


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- (d) Suppose that good X is produced in a perfectly competitive industry. Answer each of the following.
- Using labeling from the graph on the previous page, identify equilibrium output in the absence of regulation. Explain how you determined your answer.
 - To produce the socially optimum output, indicate whether the government should tax or subsidize the firms in the industry.
 - Calculate the dollar value of the needed per-unit tax or subsidy.
-



2. The graph above shows the demand for oil by United States residents, the supply of oil by United States producers, and the world price of oil. Use the labeling of the graph to answer the following questions.
- Identify the following before international trade occurs.
 - Price of oil in the United States market
 - Quantity of oil produced in the United States
 - Now assume that the United States begins to import oil at the world market price of P_w . Identify the quantity imported by the United States.
 - Identify the consumer surplus in the United States market for each of the following cases.
 - Before international trade
 - After international trade
 - Identify the producer surplus in the United States market for each of the following cases.
 - Before international trade
 - After international trade
 - Identify the net gain in total surplus from trade.

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3. Assume that a profit-maximizing firm in a monopolistically competitive industry is in long-run equilibrium.
- (a) Draw a correctly labeled graph that shows the profit-maximizing firm's price and output.
 - (b) Assume that the city in which this industry operates eliminates the business license fee (a fixed cost) for all firms in this industry. How does the elimination of the license fee affect each of the following for the individual firm in the short run? Explain your answers.
 - (i) Output
 - (ii) Economic profits

END OF EXAMINATION

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2004 SCORING GUIDELINES**

Question 2

Correct Answer:

- (a) As shown on the graph, P_2 and Q_2 were the price and quantity of oil before trade in the US market.
- (b) The amount of oil imported into the US market after trade would be equal to $Q_3 - Q_1$. US production drops to Q_1 but quantity demanded rises to Q_3 .
- (c) The triangle P_2KG represents consumer surplus before trade, while triangle P_WKH represents consumer surplus after trade.
- (d) The triangle P_1P_2G represents producer surplus before trade, while triangle P_1P_WJ represents producer surplus after trade.
- (e) The triangle JGH shows the net gain in total surplus from trade.

Scoring Guidelines: 8 points (2+1+2+2+1)

- (a) 2 points: (Pre-trade)
 - 1 - Identifying P_2
 - 1 - Identifying Q_2
- (b) 1 point: (Imports) Identifying $(Q_3 - Q_1)$ or $(H-J)$
- (c) 2 points: (Consumer surpluses)
 - 1 - Identifying P_2KG (before)
 - 1 - Identifying P_WKH (after)
- (d) 2 points: (Producer surpluses)
 - 1 - Identifying P_1P_2G (before)
 - 1 - Identifying P_1P_WJ (after)
- (e) 1 point: (Net gain in surplus) Identifying JGH