## FRQ \#1

Assume milk is produced and sold in a perfectly competitive market. To help milk producers, the government imposes an effective price floor on milk. Assume milk producers continue to sell milk only to households after the imposition of the price floor.
(a) Draw a correctly labeled graph for the milk market and show the price floor, labeled $P_{F}$, and the quantity of milk purchased by households, labeled $\mathrm{Q}_{\mathrm{F}}$.
(b) Is the market for milk allocatively efficient after the price floor is imposed? Explain.
(c) On your graph from part (a), shade the area that represents total producer surplus after the price floor is imposed.
(d) Assume the absolute value of price elasticity of demand for milk is 2 throughout the price range. Would total consumer spending on milk increase, decrease, not change, or be indeterminate after the imposition of the price floor? Explain.

FRQ \#2

A movie theater company obtains the following estimated elasticities of demand.

- The absolute value of the short-run price elasticity of demand for movie tickets is 0.85 .
- The absolute value of the long-run price elasticity of demand for movie tickets is 3.2
- The cross-price elasticity of demand for good X, another product sold by the theater, with respect to the price of movie tickets is -0.26 .
- The income elasticity of demand for movie tickets is 0.75 .

Answer each of the following by referring to the given elasticities.
(a) If the theater raises movie ticket prices by 10 percent, by what percentage and in what direction will the quantity demanded for movie tickets change in the short run?
(b) Explain why the short-run price elasticity of demand for movie tickets differs from the long run price elasticity of demand for movie tickets.
(c) What will happen to total revenue from movie ticket sales in the long run if movie ticket prices increase? Explain using the relative percentage changes in price and quantity.
(d) Are movie tickets a normal good or an inferior good? Explain.
(e) Given the increase in the price of movie tickets in part (a), what would be the impact on the demand for good X? Use the appropriate graph for good X to illustrate your answer.

## FRQ \#3

In the country of Alpha, t -shirts are sold domestically in a competitive market, the equilibrium price is $\$ 10$, and the equilibrium quantity is 100 .
(a) Draw a correctly labeled demand and supply graph for the domestic $y$-shirt market in Alpha. Plot the numbers on the graph.
(b) Assume the world price of t -shirts is $\$ 6$, and Alpha engages in international trade.
i. Will Alpha be an exporter or importer of t-shirts? Explain.
ii. On your graph in part (a), indicate the domestic quantity demanded of t -shirts at the world price and label it $Q_{D}$.
iii. On your graph in part (a), indicate the change in the consumer surplus, shaded completely.
(c) Suppose the government of Alpha imposes a tariff of $\$ 2$ on $t$-shirts. On your graph in part (a), indicate the new domestic quantity supplied of $t$-shirts as a result of the tariff and label it $Q_{s}$.

