1. **(SA)** Bill has a ticket to see guitarist Leo Kottke in concert next Friday. Bill's value of seeing the concert (what he would be willing to pay for a ticket) is $100. If he doesn't go to the concert, he will pay $10 to watch a movie, which he values at $50. Suppose you offer Bill $50 to buy his ticket to the Kottke concert. Will he sell his ticket? Why or why not?

No, he will not sell the ticket. The cost of selling the ticket is $100, the value he would give up by selling. The value of selling the ticket (i.e. the cost of not selling) is $90 ($50 in value plus $50 in cash minus the $10 price of a ticket). Since the cost of selling is higher than the cost of not selling, Bill would not sell the ticket.

2. **(SA)** Suppose that the production possibilities frontier for an economy producing two goods (guns and butter) exhibits increasing marginal costs. If only guns are produced, the economy can produce a maximum of 1000 guns; if only butter is produced, it can produce a maximum of 1000 tons of butter. Given this information, which of the following combinations of output must be productively inefficient, and why? (Hint: think of the shape of the production frontier when costs are increasing on the margin.)

   a) 500 guns and 500 tons of butter
   b) 800 guns and 300 tons of butter
   c) 200 guns and 900 tons of butter

Point A must be inefficient. Of the three points, point A is the only one to lie on a straight line from 1000 guns to 1000 tons of butter; the other two lie above and to the right of this line. If there are increasing marginal costs to production, the PPF must lie entirely above and to the right of this line (except for the two intercepts). Thus, points (b) and (c) could be efficient, but (a) must lie inside the frontier and therefore must be productively inefficient.

3. **(TF)** Because Cuba is such a small country relative to the U.S., we would expect that its citizens could not gain from specializing in production and trading with the U.S. They could, however, gain by trading with other countries of about the same size.

False. Absolute size has nothing to do with specialization and gains from trade. As long as Cuba has a comparative advantage in the production of some good - that is, Cuba can produce some good at a relatively lower opportunity cost than the U.S. - it can increase its consumption by specializing in that good and trading for goods for which the U.S. has a comparative advantage.
4. **(TF)** At a price that is below the equilibrium price in a competitive market, there is a shortage, and the demand curve gradually shift to the right, thereby reducing the excess demand.

   False. There is indeed a shortage (excess demand) if the price lies below its equilibrium value. However, we assume that the price will adjust in the face of this shortage, not the demand curve. In particular, the price will rise while the demand curve stays the same, causing a movement along the demand curve until the shortage no longer exists; i.e. equilibrium is attained.

5. **(SA)** Laws making marijuana illegal are usually enforced by making it difficult for suppliers to sell this commodity. Using the supply and demand framework, illustrate the effect of stricter enforcement of these laws on the price and quantity sold of marijuana, ceteris paribus. Can these laws be interpreted as a price ceiling, a price floor, or neither?

   Tighter enforcement of the anti-marijuana laws can be interpreted as a shift to the left in the supply of this commodity, thus driving up price and reducing production, sales and consumption. In effect, to the extent that it can be enforced, the law acts like a price floor if a floor is defined as an artificially high price.

6. **(SA)** Assume that hotel rooms in Athens are rented in a competitive market. Use the model of supply and demand to predict the effects on equilibrium price of rooms and quantity of rooms rented in Athens of the following (you may assume all hotels are of the same quality and have similar locations):
   a) The local government increases the tax on hotel rooms.
   b) The downtown Civic Center raises the prices of tickets to all events.
   c) In anticipation of a tourism boom, many new hotels are built in Athens.
   d) Hotel rates in Atlanta rise.

   a) Price will rise, quantity rented will fall (supply decreases).
   b) Price will fall, quantity rented will fall (demand decreases since tickets and rooms are complements).
   c) Price will fall, quantity rented will rise (supply increases).
   d) Price will rise, quantity rented will rise (demand increases since rooms in Atlanta and Athens are substitutes).

7. **(TF)** Demand curves slope downwards because, as the price of a good falls, the marginal cost of producing that good falls.

   False. Demand curves slope downwards because, the more of a good you consume, the less valuable it becomes on the margin. Since buyers will maximize their utility by buying until the marginal value equals the marginal cost (the price), as price falls, they are willing to increase purchases until price once again equals the (lower) marginal value.
8. **(SA)** Scalpers are often able to sell tickets at prices that are above the face value charged by the event organizers. What does this suggest is the relationship between quantity demanded and quantity supplied at the tickets’ face value? Explain.

This suggests that the face value price is lower than the equilibrium price for these events. Thus, there is a shortage and it is likely that there are some buyers who are willing to pay higher than the face value for a ticket, and some ticket holders who are willing to sell their ticket for above face value. If this is true, then there will be a “secondary” market for tickets, and some scalpers will be able to sell tickets at above face value prices to those willing to pay.