Unit 2: The Market Forces of Supply and Demand

Problem 1:
Draw hypothetical supply and demand curves for tea. Show how the equilibrium price and quantity will be affected by each of the following occurrences:
(Note: write your analysis using the supply-demand theory covered in the course)

a. Bad weather wreaks havoc with the tea crop.
b. A medical report implying tea is bad for your health is published.
c. A technological innovation lowers the cost of producing tea.
d. Consumers' income falls. (Assume tea is a normal good.)

Problem 2:
The market for pizza has the following demand and supply schedules:

Price	Quantity Demanded	Quantity Supplied
$4	135 pizzas	26 pizzas
5	104	53
6	81	81
7	68	98
8	53	110
9	39	121

a. Graph the demand and supply curves. What are the equilibrium price and quantity in this market?
b. If the actual price in this market were *above* the equilibrium price, what would drive the market toward the equilibrium?
c. If the actual price in this market were *below* the equilibrium price, what would drive the market toward the equilibrium?

Problem 3:
The rent control agency of New York City has found that aggregate demand is $QD = 160 - 8P$. Quantity is measured in tens of thousands of apartments. Price, the average monthly rental rate, is measured in hundreds of dollars. The agency also noted that the increase in Q at lower P results from more three-person families coming into the city from Long Island and demanding apartments. The city's board of realtors acknowledges that this is a good demand estimate and has shown that supply is $QS = 70 + 7P$.

a. If both the agency and the board are right about demand and supply, what is the free-market price? What is the change in city population if the agency sets a maximum average monthly rent of $300 and all those who cannot find an apartment leave the city?
b. Suppose the agency bows to the wishes of the board and sets a rental of $900 per month on all apartments to allow landlords a "fair" rate of return. If 50 percent of any long-run increases in apartment offerings comes from new construction, how many apartments are constructed?

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