Suppose you decide to embark on a singing career and Figure 1 represents the demand for your debut compact disk.

Assume you are initially at point A along the demand curve in Figure One.

1. What is Total Revenue from the sales of CD’s at point A?

2. In an attempt to spur slowing sales you reduce the price per CD from $9 to $8. What is total revenue at the new price and quantity?

3. Does total revenue increase or decrease as you move from point A to B?

4. What is the average price elasticity of demand over this portion of the demand curve? Recall that average price elasticity of demand (\( \varepsilon \)) is the average percentage change in quantity demand over the average percentage change in price.

\[
\varepsilon_P = \frac{Q_2 - Q_1}{P_2 - P_1} \times \frac{P_1 + P_2}{Q_1 + Q_2}
\]

5. Is demand price elastic or inelastic over this range (from point A to B)?
Assume now you are initially at point C along the demand curve in Figure One.

(6) What is Total Revenue from the sales of CD’s at point C?

(7) In an attempt to spur slowing sales you reduce the price per CD from $3 to $2. What is total revenue at the new price?

(8) Does total revenue increase or decrease as you move from point C to D?

(9) What is the average price elasticity of demand over this portion of the demand curve?

(10) Is demand price elastic or inelastic over this range (from point C to D)?

(11) From what you know about a linear demand curve, how could you have visually (i.e., without actually computing total revenue or elasticity) determined whether demand is elastic or inelastic over these two ranges?
Figure 2 represents the supply and demand for housing in Rohnert Park. Assume you are initially in equilibrium in Figure 2 with a market clearing price of housing at $P$ and quantity $Q$.

Suppose there is an earthquake which destroys a large percentage of the available housing in Rohnert Park.

(12) In Figure 2, show the short run affects of the earthquake on the market for housing. What happens to the equilibrium price and quantity?

(13) Suppose that after the earthquake, a group of citizens lobby the Rohnert Park city council to keep rents at the pre-earthquake level to, “prevent landlords from profiting from the misfortune of others.” What are the results of imposing a price ceiling? Explain fully and show graphically.

(14) Who gains and who loses as a result of the rent control policy.
Figure 3 represents the market for hamburgers in equilibrium at price P and quantity Q. Suppose the government decides to impose a tax on hamburgers.

(15) In Figure 3, indicate the after tax price that consumers pay.

(16) In Figure 3, indicate the after tax price that hamburger sellers receive.

(17) In Figure 3, indicate the amount of the tax revenue.

(18) Who pays the tax in this example?

(19) What factors determine who pays an excise tax?

(20) Suppose you are the presidents chief economic advisor. In order to raise revenue to reduce the federal deficit, the president is considering increasing the tax on one of the following goods: gasoline, Pepsi cola and toothpicks. What is your advice to the president concerning the tax revenues from each of these goods. Be sure to justify and fully explain your answer.