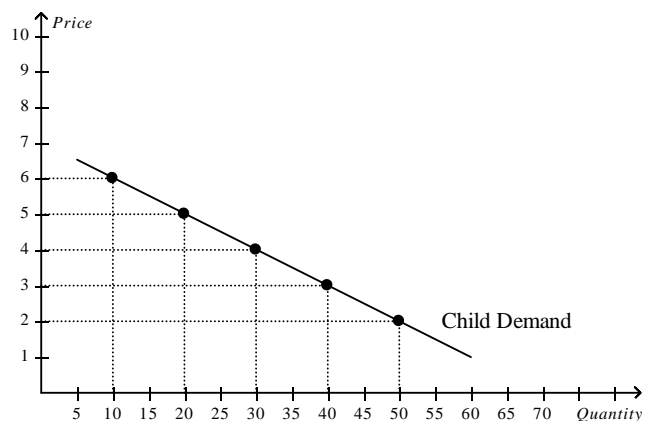
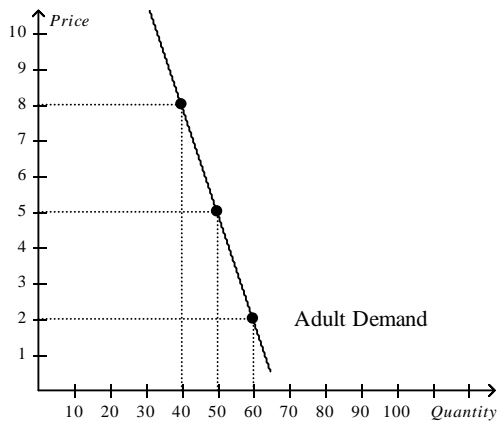


Name: _____



Answer the following questions as clearly as possible using precise economic terminology and usage. Where instructed, you must use properly labeled graphs to support your answer.

1. You own a small town movie theatre. You currently charge \$5 per ticket for everyone who comes to your movies. Your friend who took an economics course in college tells you that there may be a way to increase your total revenue. Given the demand curves shown, answer the following questions.



- What is your current total revenue for both groups?
- Which market is more elastic?
- What is the elasticity of demand between the prices of \$5 and \$2 in the adult market? Is this elastic or inelastic?
- What is the elasticity of demand between \$5 and \$2 in the children's market? Is this elastic or inelastic?
- Given what your friend knows about economics, he recommends you increase the price of adult tickets to \$8 each and lower the price of a child's ticket to \$3. How much could you increase total revenue if you take his advice?

2. Because of negative externalities, economic analysis suggests that gasoline prices should be increased (from the free market price) so that consumers take into account the external costs gas consumption imposes on society. Consider two options:
 - a. Imposing a Pigouvian tax on gasoline
 - b. Imposing a price floor for gas above the free market price (assume the government is not going to purchase any of the gas).

Assume that the new price of gas would be the same in both cases. Graph both cases and explain which option an economist would recommend and why (include in your explanation the disadvantages of the less preferred option).

3. Imagine that a law is passed which limits rent increases in Shanghai to half the rate of inflation. How would this affect producer and consumer surplus? To what extent would it cause a dead weight loss? Use a graph or graphs to support your explanation.

4. Lake Woebegone supports such a large fish population that the government sees no reason to regulate or limit the harvest of fish. Answer the following questions:
- From an economic point of view, how would this situation lead to a market failure (and what do we call this type of market failure)?
 - You are advising the governor on various ways to regulate fishing in Lake Woebegone. Explain the three methods you would tell her to consider to maintain the socially efficient level of fish harvest?
5. There are two large firms in your community, Big Chemical and Mega Manufacturing, and each is a significant source of pollution. Combined, they are currently producing 500 tons of pollution, and the EPA has determined that pollution levels need to be much lower, at no more than 250 tons of pollution. The table below shows the current pollution levels for each firm, and the marginal cost of reducing pollution for each firm. The marginal cost is constant.

Table: Pollution and Marginal Cost of Reduction

Firms	Initial Pollution Levels (tons)	Marginal Cost of Reducing Pollution (per ton)
Big Chemical	300	\$8
Mega Manufacturing	200	\$4

- If the EPA dictates that each firm must emit only 125 tons of pollution, how much total cost would the firms incur to meet this environmental standard?
- If the EPA implements a cap and trade program, distributing 125 pollution permits to each firm, each of which give the firm the right to emit one ton of pollution, which firm will be selling pollution permits, and which firm will be purchasing permits? Why?
- What is the possible price range for the sale of pollution permits?
- Assume the parties agree to trade the permits for \$6 per ton. In this case, what is the combined cost to comply with the EPA rules? How much has been saved overall as a result of the cap and trade program?