

NAME: _____

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Principles of Economics

Third Quiz

Instructions (Read Carefully and Follow Precisely):

You have 45 minutes to complete this closed-notes, closed-book, 100-point exam. (You may use a 1-sided 8.5x11" notes sheet and a calculator whose memory and programming are cleared.) You must not collaborate with any other person in any way on this exam. You must not view anyone else's exam.

1. (15 points) There are only two countries in a hypothetical world—country X and country Y, and only two goods can be produced—cheese and bread. Country X is 10 times better than country Y at producing cheese, and country X is 5 times better than country Y at producing bread.

Question: According to the theory of comparative advantage, can the two countries benefit from trade? If so, then explain why, and state which good each country should export and which good each country should import. If no benefit from trade is possible, then explain why not.

2. (15 points) Jane has \$200; she must decide how much of it to spend this year. Any money that she doesn't spend will be deposited in a savings account, where it will earn 15% interest. She will spend her savings plus her earned interest next year. Jane has no other source of income.

Jane maximizes her utility by saving \$40 out of her \$200 this year.

a) Graph Jane's intertemporal budget constraint. Include at least 4 numbers on your graph.

b) Calculate how much Jane will spend next year.

3. (20 points) Complete the following table (show calculations for credit):

Q	TFC	TVC	TC	MC
0	_____	_____	_____	--
1	10	_____	15	_____

4. (20 Points) Biff has \$6 to spend on Candy and Carrots. Candy is \$2 each; Carrots are 50 cents each. Here is Biff's Marginal Utility info:

<u>Units Consumed</u>	<u>MU Candy</u>	<u>MU Carrots</u>
1	100	35
2	80	30
3	70	25
4	60	20
5	50	15

a) How many units of each good should the utility-maximizing Biff buy? Explain your answer.

b) Calculate Biff's total utility after consuming the products in (a) above.

5. (10 Points) Buffy has purchased pretzels and pizza so that after her income has been spent, her marginal utility from pretzels is 100 utils, and her marginal utility from pizza is 400 utils. Pretzels are \$1 each; pizza is \$5 each.

--Is Buffy maximizing her utility? Explain why or why not. If she is not, indicate whether she should have bought MORE or FEWER pretzels **and** MORE or FEWER pizzas. Also, be sure to precisely use the utility-maximizing rule in your response.

6. (10 points) A firm is selling 100 units of output for \$5 each. If it lowers the selling price to \$4 each then it will sell 200 units of output.

Calculate the price elasticity of demand for the firm's output.

7. (10 points) Name two ways (consistent with our in-class discussion) that a country can increase its rate of long term economic growth. Briefly explain how these things act to increase long term economic growth.