

Total quiz is worth 20 points, each numbered question is worth 2 points, and each sub question (the a / b / c / d parts) are worth equal shares of the two points.

1) Circle whether the statement is true or false:

- a. A change in consumers' income leads to a shift in the supply curve.  
TRUE      FALSE
  
- b. A good for which there is an elastic price elasticity of supply has a larger percent change in quantity than the corresponding percent change in price.  
TRUE      FALSE
  
- c. Indifference curves cross only if the individual views the two goods in question as inferior goods.  
TRUE      FALSE
  
- d. A change in the cost of an input used in production leads to a shift in a supply curve.  
TRUE      FALSE
  
- e. The opportunity set becomes smaller when a consumer's income increases.  
TRUE      FALSE
  
- f. The slope of the indifference curve reflects the willingness of the individual to trade off a given amount of one good to obtain a given amount of another good  
TRUE      FALSE

2) Taxes.

a. Illustrate on a graph the impact of a specific tax placed on producers. First, identify the original pre-tax equilibrium price-quantity pair. Then for the post tax scenario identify: the price paid by consumers, the price received by producers, the size of the tax revenue, and the quantity.

b. Illustrate on a graph the impact of an ad valorem tax placed on consumers. First, identify the original pre-tax equilibrium price-quantity pair. Then for the post tax scenario identify: the price paid by consumers, the price received by producers, the size of the tax revenue, and the quantity.

c. Briefly explain the concept of consumer incidence using the graph you drew for (b).

3) Match the outcome to the policy that could generate it and **show the impact on a supply and demand curve**. Label all curves, axes, and points.

**Policy:**

*Price floor.*

*Price ceiling.*

*A specific tax on producers.*

*Input price increases.*

**Outcome**

**Policy**

Government purchase of surplus to maintain price.

\_\_\_\_\_

Price paid by consumers is greater than the price received by suppliers

\_\_\_\_\_

Consumers wait in lines to obtain the good (due to non-market rationing)

\_\_\_\_\_

Equilibrium price paid by consumers increases and quantity sold decreases

\_\_\_\_\_

- 4) If  $p_1 = 10$ ,  $p_2=20$ , and  $Y=200$
- a. Draw the budget constraint.

- b. Show how you can derive the price consumption curve for a given consumer's preferences (drawn as you like so long as they obey the properties of indifference curves discussed in class) using:  $p_1 = 5$  all else constant, the  $p_1 = 10$  line you drew for (a), and  $p_1 = 20$  all else constant.

- c. Show how to derive the individual's demand curve from the graph in (b).

5) If I give you the following demand equation:  $Q=286-40*p$ ,

a. Fill in the quantities for the following table

Price	Quantity
1	
2	
3	
4	
5	

b. Draw this curve.

c. Calculate the elasticity using the higher price, lower quantity (p, q) pair.

Price	Elasticity
1	XX
2	
3	
4	
5	

d. Which of these calculated elasticities are inelastic and which are elastic?

6) You are given that  $p=50-4q$  is the inverse demand curve and  $p=10+6q$  is the inverse supply curve.

a. What is the equilibrium price quantity pair if the market is perfectly competitive?

b. Illustrate the effect of a price ceiling set at \$22 on the graph.

c. Describe the outcome of this policy in terms of quantity supplied and quantity demanded. If there is excess supply or excess demand, describe the size of it in terms of the quantity of the shortage or surplus (calculate numbers here).





9) Compared to last year, the price of honey has gone up significantly. Winnie the Pooh argues that this is because there has been a virus that has run through the bee population that has had a significant negative impact on honey production. Christopher Robin says Winnie the Pooh is a 'silly old bear' and instead explains the increase in the price of honey as a result of the price of sugar going up dramatically due to new environmental policies in the Everglades making sugar production more costly.

a. Graph Winnie the Pooh's argument on a supply and demand graph for honey.

b. Graph Christopher Robin's argument on a supply and demand graph for honey.

a. Which explanation is more consistent with the facts if the quantity sold of honey decreased 5% over the past year? Justify your answer.

10) A local ski area is considering raising the price of an annual pass from \$1,000 to \$1,250. If the number of annual passes sold is currently 12,500 and the best available information suggests that the price elasticity of demand for annual passes is -1.2, answer the following questions.

a. What is the predicted membership level after the price is raised?

b. Compare total revenue for the ski area at the annual pass fee of \$1000 and at the price of \$1250. Which is higher?

c. Will a price decrease for the annual fee to \$900 from \$1,000 raise or lower annual revenue from the baseline of \$1,000 and 12,500 passes? By how much?