# Douglas College

ECON1150-005 Principles of Microeconomics
Winter 2020

**Assignment #4**
Answer Key

**1. Chapter 8, Problem #6.**

a. Since AP=Q/L, 30=Q/20, and Q=600.

b. Since MP>AP, the MP might be increasing or decreasing. This means we can't tell whether the MC curve is upward or downward sloping.

c. Since MP>AP, the AP must be increasing, therefore, the AVC is decreasing.

**2. Chapter 8, Problem #8.**

They are all false.

**3. Chapter 9, Problem #2.**

By producing the extra box total costs increase by $11 (= $1.01 x 1000 - $1 x 999), and you earn $5 more. Since MR < MC, you should turn the deal down ... if there are no consequences from turning a Prime Minister down!

**4. Chapter 9, Problem #14.**

a. $1000.

b. The firm earns a profit of $1000.

c. The firm earns a rent of $2000.

d. No, if this were the case the firm would be earning zero profit.

e. The marginal costs are $60.

**5. Chapter 9, Problem #20.**

a. Profits are the difference between the value of resources in one activity minus the value of those resources in their next best use. When the music venue loses money, it means that all of the resources used to produce that music were worth more elsewhere. Hence, when

firms lose money they make a negative contribution to the community. Most of the time this is borne by the owners of the firm.

b. The person is ignoring the opportunity cost of the venue. If the venue can be rented out to someone else, this is a cost to the firm. Hence, the statement makes no economic sense.

**6. Chapter 10, Problem #2.**

a. There will be an increase in the price of apples. If apples and peanuts are substitutes, then the demand for peanuts should increase, causing an increase in the price of peanuts.

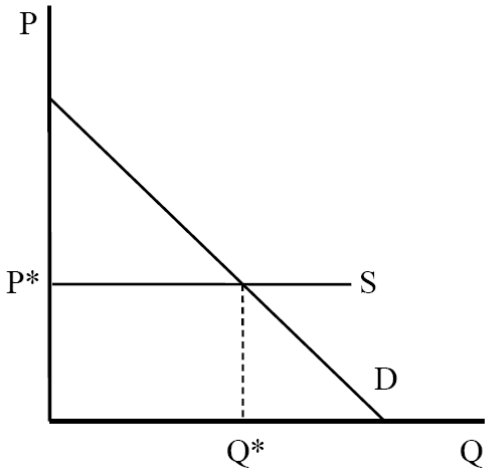
b. The value of the land will fall as the owners absorb the tax.

c. Nothing.

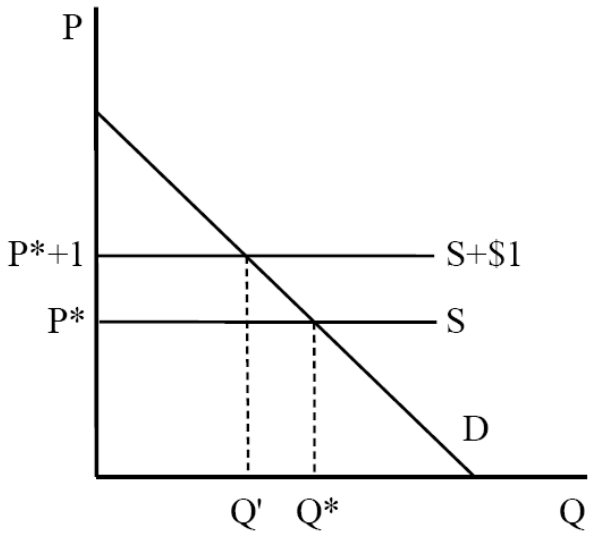
d. The value of this equipment will fall for the same reason the value of apple land falls.

**7. Chapter 10, Problem #24.**

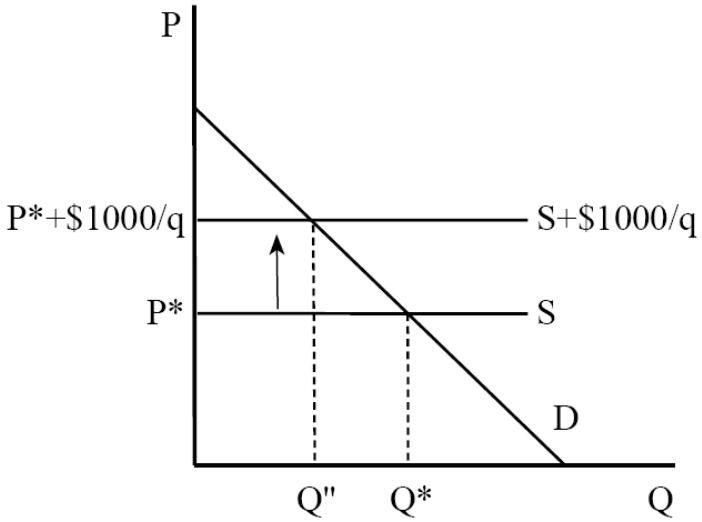
a. Since every firm is the same, the market supply curve is flat and equals the lower envelope of all the individual firm's average cost curves. Hence, the market demand curve determines the equilibrium output Q*, but technology determines the price P*.




b. Every firm has their marginal cost and average cost curves increase by a dollar. This means the market demand curve increases by a dollar, and therefore, the price also increases by a dollar.

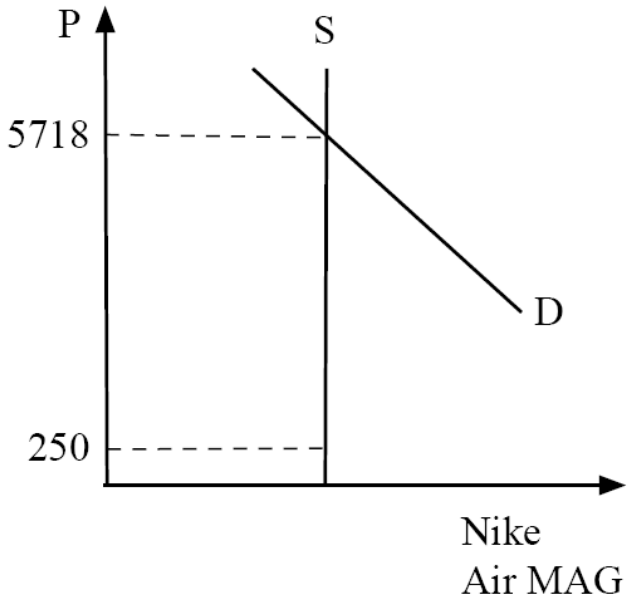



c. Now every firm has their average total cost increase by $1000/q; where q is the quantity of output of the firm. But this means that the market supply curve shifts by the same amount, and this is the increase in the price. There's no reason why the level of market output would be the same as in (b).




**8. Chapter 10, Problem #26.**

a. The market equilibrium price is an amazing $5718, and this price is determined by the intersection of the supply and demand curve. Nike prices their shoe at only $250, which means there is an enormous excess demand for the shoe.




b. The sneakerhead is willing to pay up to $5718 for the shoes, but only has to pay $250. The way to capture this wealth is to wait in line. And so, sneakerheads will wait a very long time in order to have the shoes allocated to them.

c. If the cost of time was $10/hour then the sneakerhead should be willing to wait 546 hours, or almost 23 days. The lines were probably not that long.