

**ECON 201-003 Assignment #8,
Perfect competition
Due Date: March 26, 2013 @13.00.**

Question 1: Profitability of snowboard production (revisited) (30 points).

Consider the cost structure given in Q1 of Assignment #7.

1. Resubmit the calculation for AFC , AVC , ATC , and MC in a table and plot again the AFC , AVC , ATC , and MC curves (12.5 points)
2. Based on your graph and the calculated data for the cost structure, explain and show the breakeven price (5 points)
3. Based on your graph and the calculated data on the table explain and show the shutdown price (5 points)
4. Calculate the firms profit if a competitive market sets a price of 67 dollars per snowboard. Illustrate your answer graphically (7.5 points)

Question 2 Market for canola (40 points)

Figure 1, panel A, depicts the perfect competitive market for canola where S_1 is the Short Run industry supply curve. Figure 1, panel B shows the cost structure of the individual farmer who is a "price taker." Assume that all farmers are identical thus they have the same cost structure. Track the values from the graph to indicate and calculate the following. Illustrate all your answers graphically and fully explain the theoretical underlying conditions.

1. The Short Run market equilibrium (5 points).
2. The optimal output for the individual farmer at the equilibrium price (5 points).
3. The farmer's profits (5 points).
4. The number of farmers in the market (5 points)
5. Consider the new entry in this profitable industry which will result in an increase in supply. Explain and show graphically the supply increase that is needed to bring the industry in the Long Run market Equilibrium (LRE). Denote the new Short Run supply by S_2 and fully explain the LRE (10 points).
6. Show the optimal output for the individual farmer and the farmer's profits in the LRE (5 points)
7. Calculate the number of firms in the Long Run market equilibrium (5 points)

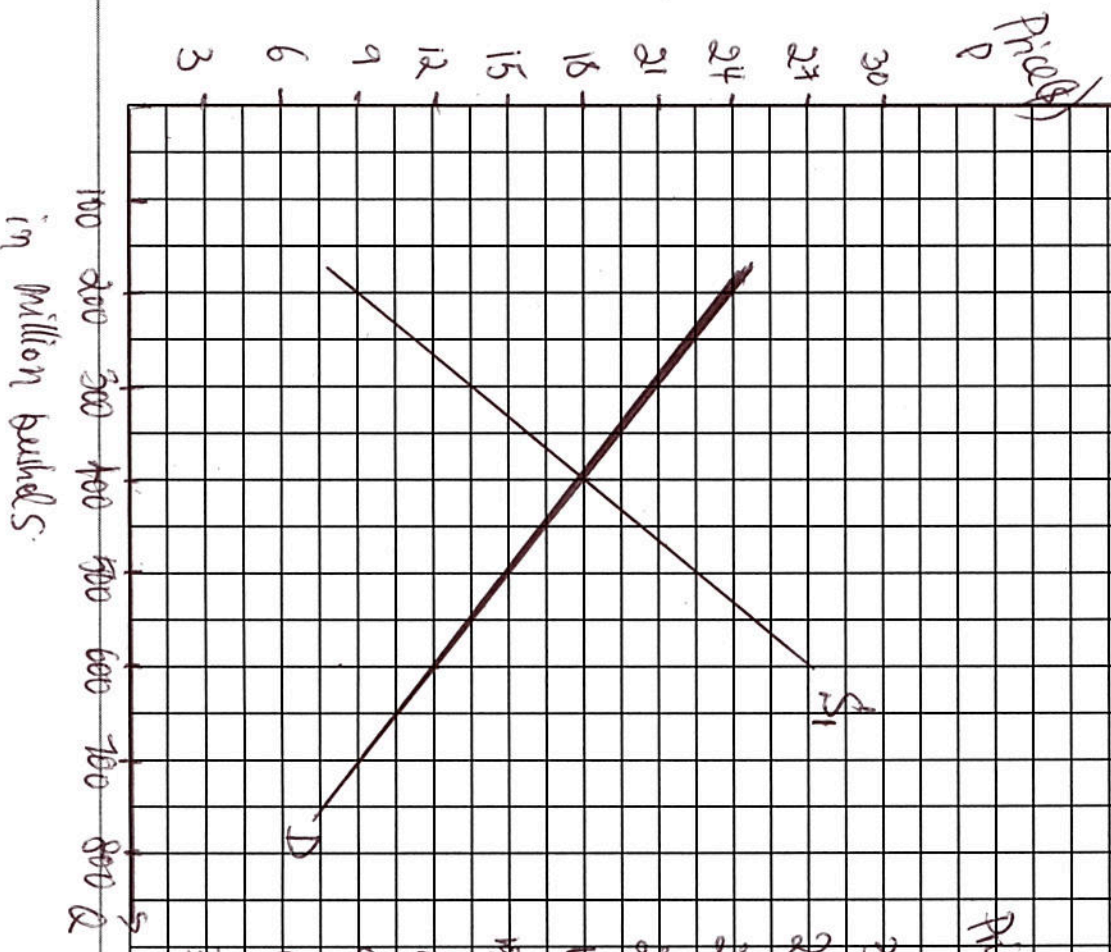
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Question 3. Long Run Supply for the Airline Industry (30 points)

In the airline industry, an increase in the industry output (air transportation) is associated with congestion. More specifically, with larger airline industry output, congestion of airports and airspace increases and in turn this results in longer delays and extra waiting time for passengers and airplanes. This limited amount of inputs (space, airport facilities, etc) set limits on the number of new entrants in the industry.

1. Consider that the industry is in the short and long run equilibrium. Illustrate this situation graphically by denoting the demand by D_1 and supply by S_1 and the prevailing equilibrium by $E_1^{S,L}$ (5 points).
2. Now consider an increase in the demand for air transportation. Denote the new demand by D_2 . Show graphically the short run equilibrium under this change and denote it by E_2^S . What happens to the market price and the existing airline's profits in SR? (5 points)
3. How will new firms respond to the change in price and profits of existing firms in the industry? What happens to the industry supply due to this response? (5 points)
4. Illustrate the new SR Supply by S_2 , keeping in mind the characteristics of the industry (the congestion) and allowing for the adjustment of new entry. Show the new SR and LR equilibrium and denote it by $E_2^{S,L}$ (5 points).
5. Draw the LRS curve. Is the LRS flat or upward sloping? Explain (5 points).
6. Comment on the truth of the following: As a result of the industry congestion, a permanent increase in demand for air transportation brings an increase in the quantity and a rise in price (5 points).

Panel A: Market for Cornola



Panel B: Individual Farmer

