

Assignment #6
Economics 101 – Section 5
Due Date: Thursday March 4, 2004

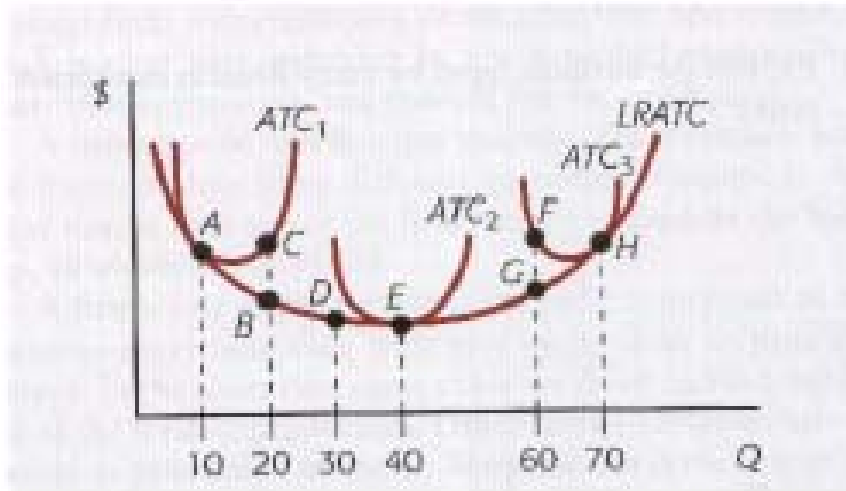
Instructions: Complete all questions and sub questions on separate sheets of paper. Make sure to include your name (first and last) and your student number on the first page of your assignment. Staple all sheets together and turn in to my office by the due date.

1. The following table gives the short-run and long-run total costs for various levels of output of Consolidated National Acme, Inc.:

<u>Q</u>	<u>TC1</u>	<u>TC2</u>
0	0	350
1	300	400
2	400	435
3	465	465
4	495	505
5	560	560
6	600	635
7	700	735

- a. Which column, TC1 or TC2, gives long-run total costs and which gives short run total costs? How do you know? (Remember that in the long run all inputs are variable and it is possible to have not cost at all.)
- b. For each level of output, find the short-run TFC, TVC, AFC, AVC, and MC. Keep in mind that you have determined from a. that TC2 gives the short-run total costs.
- c. At what output level would the firms short-run and long-run input mixes be the same?
- d. Starting from producing two units, Consolidated's managers decide to double production to four units. They do this by doubling all of their inputs in the long-run – that is, instead of having one company produce 2 units at a cost of 400 they have essentially 2 companies producing 2 units each at cost of 400 (so their total cost from these two companies will be 800). Comment on their managerial skill.
- e. Over what range of output do you see economies of scale? Diseconomies of scale? Constant returns to scale?

2. Ludmilla's house of pancakes is currently producing 10 (thousand) pancakes per day at point A on the following diagram. Ludmilla's business partner Hans (brother to Fritz), thinks they should double production immediately.



a. What point will likely illustrate Ludmilla's cost situation for the near future if they double production in a very short time? Why?

b. If Ludmilla wants to keep producing 20 pancakes, at what point does she want to be eventually? How would the company get there?

c. Eventually, the company does very well and expands to 70 pancakes per day. However, after a few years, Ludmilla discovers that profit was greater when she produced only 20 pancakes per day. She wants to scale back production to 20 pancakes per day by laying off workers, selling off equipment, renting less space, and producing fewer pancakes. Hans wants to reduce output by just cutting back on flour and milk and laying off workers. Who's right? Discuss the situation with reference to the relevant points on the diagram.

d. Does the diagram tell us what output should be? Why or why not?