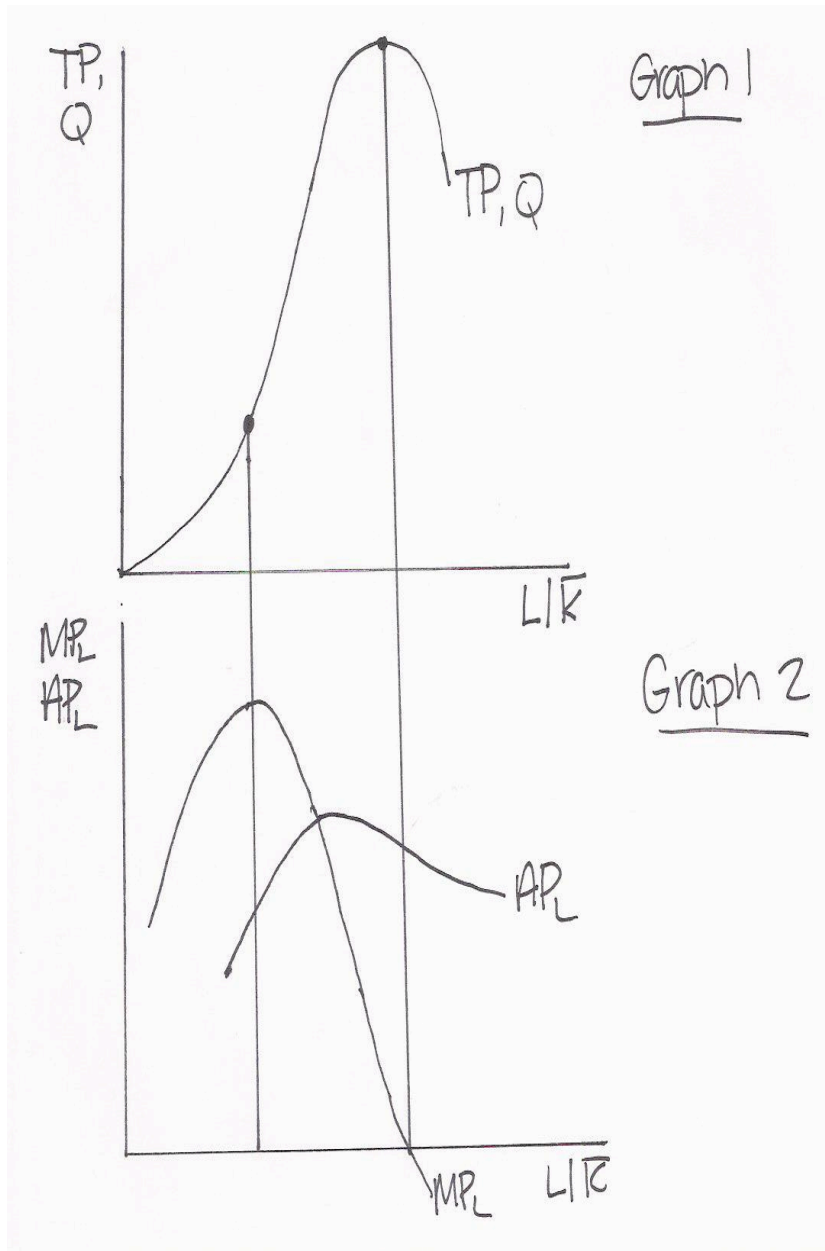


The Central Relationship in Econ 221

This relationship is the most important one in the class so understanding it is the key to success to the second test. There are a series of questions presented beside each graph so answer those to the best of your ability. If you are not sure of an answer, consult the textbook or your notes from previous SI sessions.

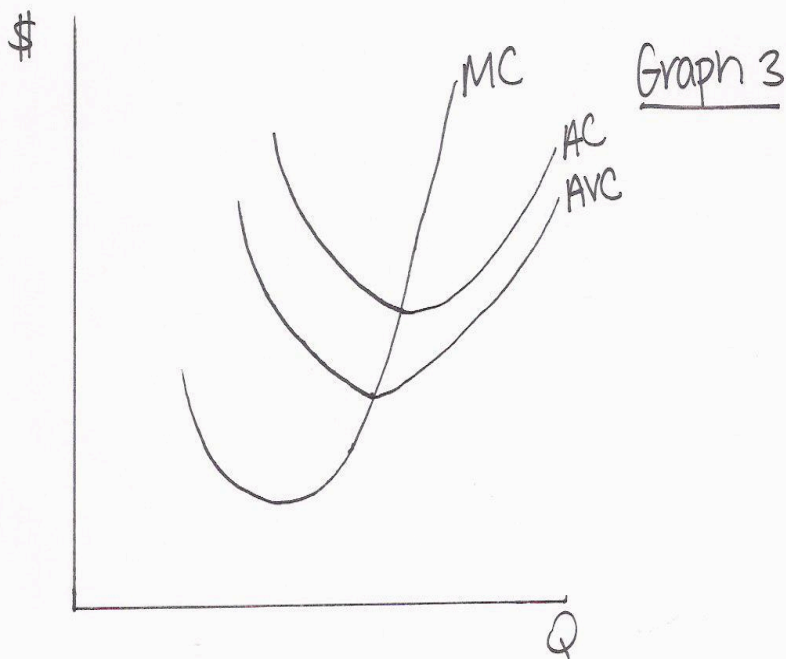


Questions about Graph 1

1. What is the name of this function?
2. What are the characteristics of this graph?
3. What property causes the change from increasing at an increasing rate to a decrease rate?
4. What does this function tell us?

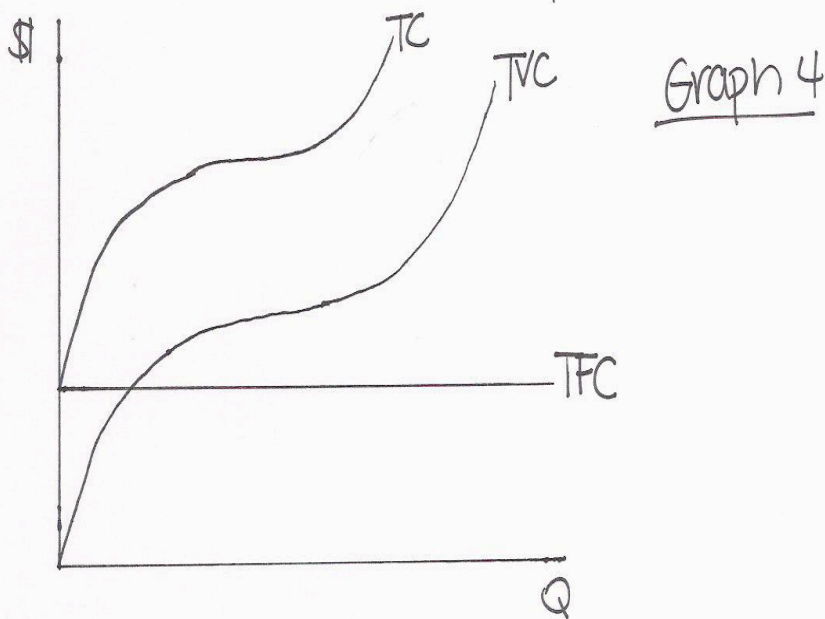
Questions about Graph 2

5. What are the names of these graphs?
6. How are these two graphs related to graph 1?
7. How are they derived?
8. What are the formulas for these two graphs?
9. What property causes the marginal product to decline?
10. What is the marginal-average rule?



Questions about Graph 3

11. How is graph 3 related to graph 2?
12. Does the marginal-average rule apply to these graphs?
13. What are the formulas for the curves depicted in this graph?
14. How are these curves derived from graph 4?
15. What is the average cost identity?



Questions about Graph 4

16. How is total cost related to the production function?
17. What is the total cost identity?
18. What causes total cost to switch from increasing at a decreasing rate to an increasing rate?
19. What are variable costs and fixed costs?
20. If the firm produces no output, what does the firm have to pay based on the graph?