Problem Set #6
ECNS 204
Due Monday, Nov. 9th by 10am
Submit to via email to TA at alectruax@gmail.com

_____Name

1.) Aaron and Charlotte find themselves on a deserted island. The only two activities available are fishing and hunting rabbits. In a full day, Aaron can catch 4 fish or 2 rabbits; in the same time, Charlotte can catch 3 fish or 6 rabbits. Activities can be divided with no loss of efficiency. When left to their own devices, Aaron consumes 2 fish and Charlotte consumes 2 fish also. (Silberberg and Ellis, Ch. 6, #3)

a.) How many rabbits can each person consume acting alone?

b.) What are each individual's marginal costs of fishing and hunting rabbits?

c.) Explain how Aaron and Charlotte can improve their standard of living through specialization. If they decide to continue to consume 2 fish each, what is their gain from specialization and trade?

2.) Mutt and Jeff find themselves on a deserted island. The only two activities available are fishing and hunting rabbits. In a full day, Mutt can catch 8 rabbits or 16 fish; in the same time, Jeff can catch 8 rabbits or 4 fish. Activities can be divided with no loss of efficiency. When left to their own devices, Mutt consumes 6 rabbits and 4 fish, and Jeff consumes 2 rabbits and 3 fish.

Explain how Mutt and Jeff can improve their standard of living through specialization. That is, what are their gains from specialization? What role, if any, does one person's absolute advantage play in your analysis? Also, illustrate graphically the combined production possibility frontier along with the bundle of goods in the economy when they specialize and the bundle of goods without specialization. *Note: No graph, no points.*

3.) Why is it that in primary schools one teacher instructs a class for an entire day in such diverse subjects as spelling, arithmetic, geography, science, etc., whereas in secondary schools and in college, these topics are taught by specialists in each field. Why do you suppose primary schools are structured contrary to the gains from division of labor? (Silberberg and Ellis, Ch. 6, #7)

4.) California Sea Lions are protected by the Marine Mammal Protection Act. It is illegal to shoot or even to harass sea lions. In the Pacific Northwest, these animals have devasted salmon runs to the extent that certain subspecies of salmon are endangered. What fundamental principles of economics is illustrated by this policy? (Silberberg and Ellis, Ch. 6, #16)

5.) Consider two wood pulp firms with the following marginal cost schedules. Firm A produces the first ton of pulp at $1 per ton, the 2nd ton at $2/ton, the 3rd at $3, etc., while firm B produces 2 tons of pulp at $1 per ton, tons 3 and 4 at $2 per ton and so forth. (Silberberg and Ellis, Ch. 6, #21). *Note: You need a graph for parts a. and b. of this problem (one graph can be used for both parts). No graph, no points.*

a.) If 30 tons of pulp are to be produced, what outputs at each plant would minimize the total cost of the pulp?

b.) Suppose the market price for pulp is $10/ton. How much will each plant produce?

c.) Suppose now, along with each ton of pulp produced, the firms produce a ton of pollutants, which decrease the value of the surrounding area by $2 per ton. What is the economically efficient level of output at each plant?

d.) Suppose the government simply ordered the firms to cut back pulp production to 3 tons each. Would that result in efficient use of resources? Explain.