Problem Set 2
Due: September 12, 2003.

1. Read the attached articles and comment on the opportunity costs of some energy-saving environmental policies. Can you name a few benefits of these policies?

2. Expert bowlers at ISU say that, given the speed and direction, a heavy ball tends to throw more pins than a lighter ball. On the other hand, everyone who bowls knows that it is increasingly difficult to give direction the heavier the ball. Casual observation indicates that men tend to use heavier balls than women when bowling. Can you use marginal analysis to explain this curious sociological phenomenon?

3. “There must be some relation between the level of crime and the level of punishment and law enforcement” observes Law Professor Kathriel Kelah. “Societies where the crime rate is high, have harsher punishments and societies with low crime rates have lower levels of punishment. For instance, think of Norway and the US.” Whether or not you agree with Professor Kelah’s assertion, describe briefly what the benefits and costs of different levels of punishment and law enforcement are, and use “marginal analysis” to explain of Prof. Kelah’s deep observation.

4. I ride the cyride buses regularly. A few days ago I bought a booklet with fifteen tickets, each of which allows you to make one ride. The regular price is $10 for the booklet, but this time, the seller must have made a mistake and he charged me only $5. This morning, my son had to take the bus and he asked me for some money to pay for the bus ticket. The children’s fare is $.35 per ride but since I did not have exact change, and being fully aware that you do not get change back if you pay more than the regular price, I gave him two quarters. The question is, did I do the right thing? Or should I have given him one of the tickets from my booklet? (Use the concept of opportunity cost.)

5. A coffee shop serves both cappuccino and strong cafe latte. A good cappuccino requires one unit of coffee and two units of milk, while a good strong cafe latte requires three units of coffee and only one unit of milk. There are only 180 units of coffee and 120 units of milk.

(a) Draw the production possibilities frontier of the coffee shop.

(b) Give an example of a feasible and efficient production point.

(c) Give an example of a feasible but inefficient production point.

(d) Assume that 45 cappuccinos and 30 cafe lattes are being produced presently. What is the opportunity cost of one additional cappuccino? What is the opportunity cost of one additional cafe latte?

(e) Assume that 36 cappuccinos and 48 cafe lattes are being produced presently. What is the opportunity cost of one additional cappuccino? What is the opportunity cost of one additional cafe latte?