Place your name on the back of this sheet of paper and nowhere else. Staple your answers face up on the front of this sheet of paper. Failure to follow these directions will cost you 1 point. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

- 1) (30 points) Draw the supply and demand for gasoline. Using gasoline creates a negative externality called pollution. Use your graph to find the socially optimal point and prove that the market will not produce that quantity. How do economists say to fix that problem. Illustrate that solution on the graph and explain how it results in the optimal production.
- 2) (15 points each) For each of the following, explain why it is an economic reason to have government. Answer each part in separate paragraphs and give me economic reasons. (One of these, the book gives a non-economic, but I gave an economic reason. I want the economic reason.)
- A) Promote competition.
- B) Income redistribution.
- C) Public goods.
- 3) (25 points) Explain the differences between *voting* and the *market* when it comes to decisions about whether something should be done. Make sure you explain an advantage and a disadvantage of each system.