Place your name on the back of this sheet of paper and nowhere else. Staple your answers on the front of this sheet of paper. Failure to follow these directions will cost you 10 points. If you use double-sided printing or write on the back of scrap paper, I will give you one additional point.

- 1) (20 points) Draw the PPF for hats and umbrellas which shows that there are increasing returns to scale in both industries. Explain why the curve takes its shape. What is the economic implication for specialization. In other words, will this lead to incomplete or complete specialization? Explain you logic and add any appropriate lines to prove your point.
- 2) (25 points) Draw the MC/ATC/D/MR diagram for a monopolistically competitive firm in the long-run equilibrium. Add one set of additional D & MR curves which correspond to an increase in the number of firms in the industry. Explain why the curves are where you drew them.

 B) (25 points) Use the diagram in Part A to explain the shape of the curves on the diagram with the number of firms on the horizontal axis and price and ATC on the virtical axis. Draw the diagram. Why does free trade move the costs curve?
- 3) (10 points) What is happening in Stage III of the product cycle? Does this diagram correspond to all countries? Explain your logic.
- 4) (20 points) Draw the diagram with the two supply/demand diagrams on either side of the vertical axis. Show the equilibrium prices and trade if there are transportation costs. State how your diagram shows the transportation costs, the prices in the two countries, and the level of exports equals the level of imports.