

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 10 points. 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) Assume there are 10 firms in a perfectly competitive market which is a constant cost industry. (I realize that is not enough for perfect competition, but it makes the diagram easier to deal with.) Draw a firm's ATC/AVC/AFC/MC/D diagram and beside it, the industry long-run supply/short-run supply/demand. Start with the firms making zero profits. Explain how you know they are making zero profits. Explain how you got the industry supply curves from the firm's diagram.
- 2) (40 points) Draw the industry long-run supply/short-run supply/demand diagram and beside it the ATC/AVC/AFC/MC/D diagram with the firm making positive profits. Find the profits. State how you know you found the profits. What will happen over time? Why? Illustrate the effects of that on the graphs. Explain why the curves moved as drawn. Assume it is a constant cost industry.
- 3) (15 points) Explain why an industry may be an increasing cost industry. Explain what that means the long-run industry supply curve looks like.
- 4) (15 points) Explain why the MR curve for a price searcher is below the demand curve.