

Place your name on the back of this sheet of paper and nowhere else. Staple your answer sheet 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) (20 points) Suppose the firm has a fixed cost of \$400. Its goods sell for \$5 per unit and the marginal cost is \$3 per unit. Draw the TC/TR diagram which corresponds to this. What is the break-even point? Show all work. If the firm is producing 250 units, calculate the DOL showing all work.
- 2) (20 points) Draw the TC/TR diagram for two firms which have the same profits but different DOLs. Explain how you know which one has a higher DOL. Which company is facing more risk? Explain your logic.
- 3) (40 points) Draw the perfectly competitive industry supply and demand diagram and beside it the firm's AVC/ATC/MC/D/MR diagram for an industry making positive profits. Show the profits and explain how you found them. Illustrate what happens in the long term. Explain why the curve(s) moved as drawn.
- 4) (20 points) Draw the ATC/AVC/MC/D/MR diagram for a perfectly competitive firm which is losing money but staying in business in the short-run. Show the losses if they stay open and the losses if the shut down. Explain how you found them.