

The last one!

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 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) Draw the TR/TC/profits diagram for a perfectly competitive firm who is making positive profits. Explain how you determined profits from the other lines. Use this diagram to explain why profit maximization requires $MR = MC$.
- 2) (20 points) Draw the ATC/AVC/MC/D/MR diagram for a perfectly competitive firm who is making positive profits. Find the quantity they produce, price they charge, and their profits. Explain how you found each of them.
- 3) (25 points) Draw the ATC/AVC/MC/D/MR diagram for a perfectly competitive firm who is making negative profits but still staying open. Find the quantity they produce, price they charge, and their losses. Explain how you found each of them. Prove that they would lose more if they shut down immediately.
- 4) (20 points) Draw the ATC/AVC/MC diagram for a perfectly competitive firm. Use that to find the firm's supply curve. Explain why that is the supply curve.
- 5) (15 points) How did your answer to Question #3 use the assumptions that the firms are "price takers" and "profit maximizing"?