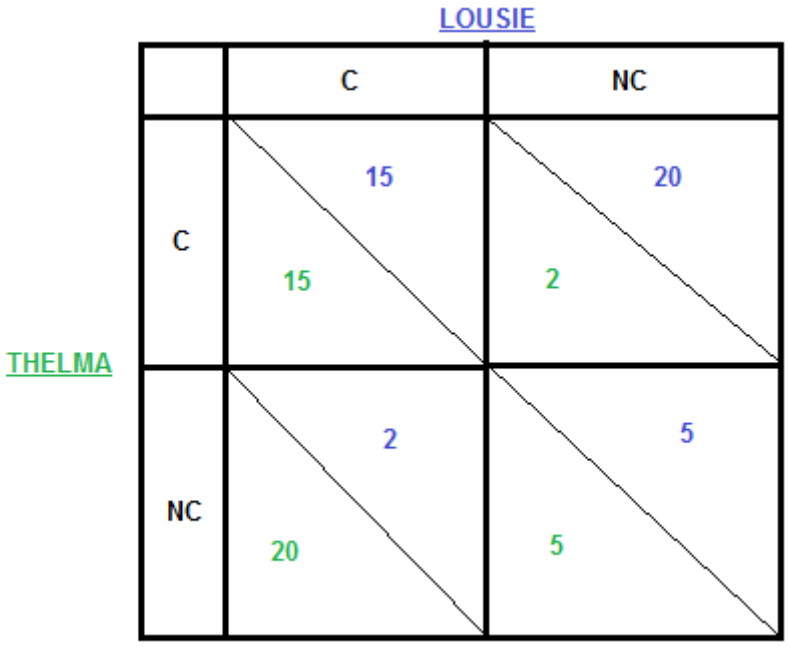
EMAIL PRACTICE TEST ANSWERS: ECON 1 MIDTERM 1

MULTIPLE CHOICE
1. C
2. D
3. B
4. D
5. C
6. D
7. D
8. A
9. D
10. A
11. C
12. D
13. D
14. B ==> Because the budget line is downward sloping in x-y space the answer should read "*the negative of the* price of good x divided by the price of good y" to be completely correct.
15. A

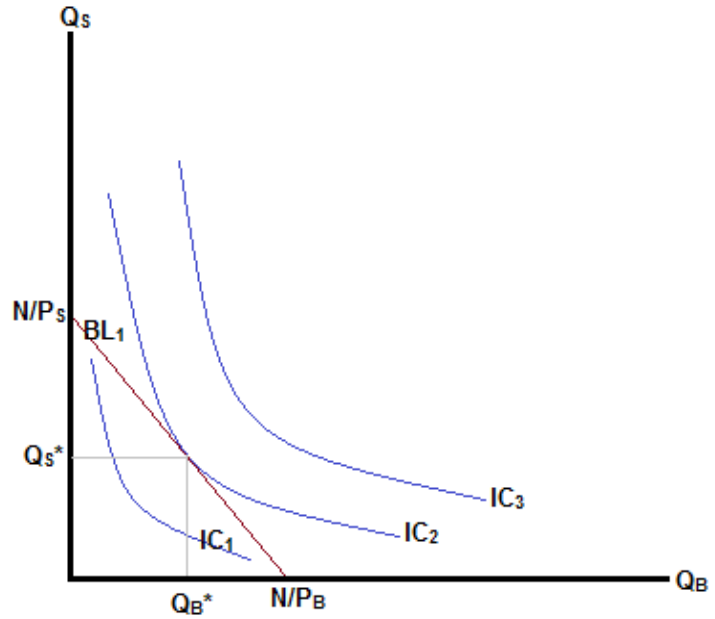
SHORT ANSWER
1. Prisoner's Dilemma



Both Thelma and Louise's dominant strategy is to confess because regardless of what the other player chooses, each player's individual sentence is minimized by confessing.
The only Nash equilibrium in this game is for both to confess -- or (Confess, Confess).

2. Optimal Consumption Bundle

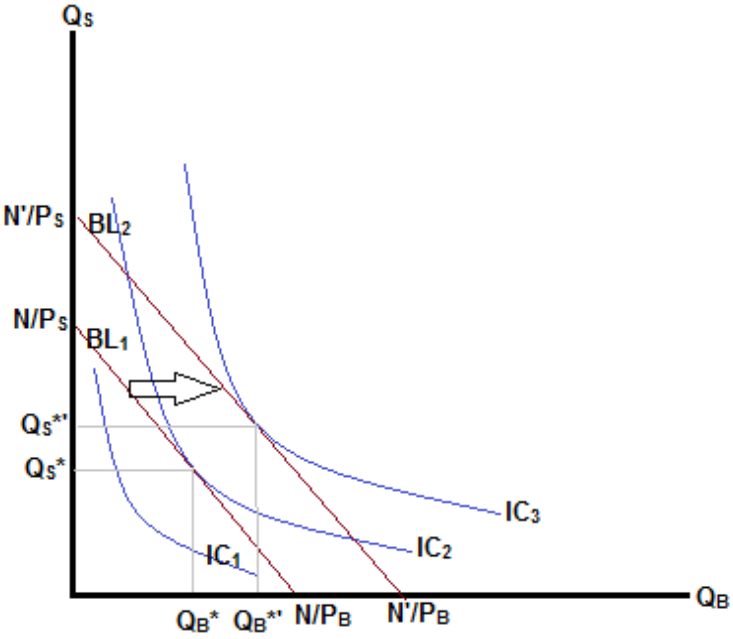
Part a:



The optimal consumption bundle can be graphically found using the tangency condition. That is, the optimal bundle is given by the point where the budget line is just tangent to the highest indifference curve. Mathematically, this occurs when the slope of the budget line is just equal to the slope of the indifference curve:

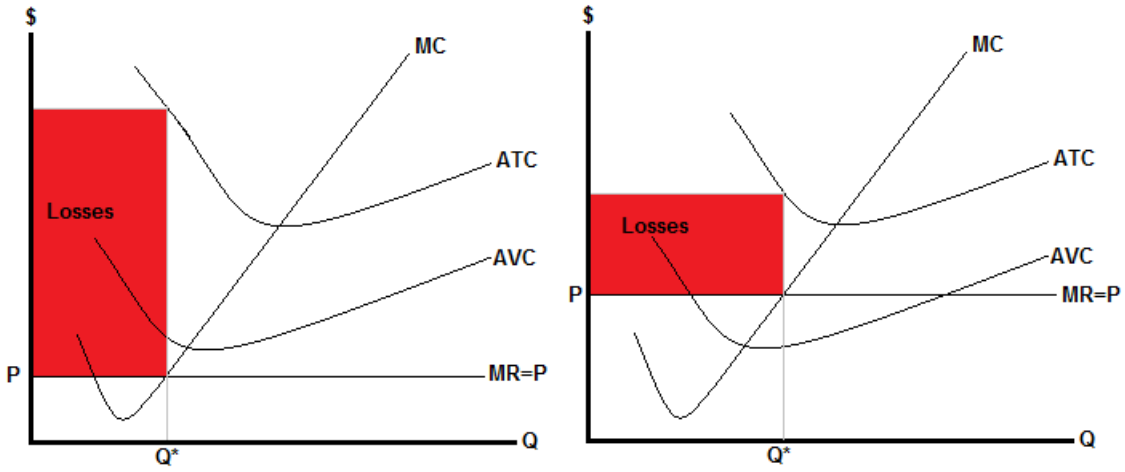
$$-\frac{P_B}{P_S} = -\frac{MU_B}{MU_S}$$

Part b:



Holding prices constant, the increase in Rosalinda's income causes a parallel shift out of the budget line. Assuming that both burritos and strawberries are normal goods, consumption of both goods will increase.

3. Short Run Profit Maximization in a Perfectly Competitive Industry



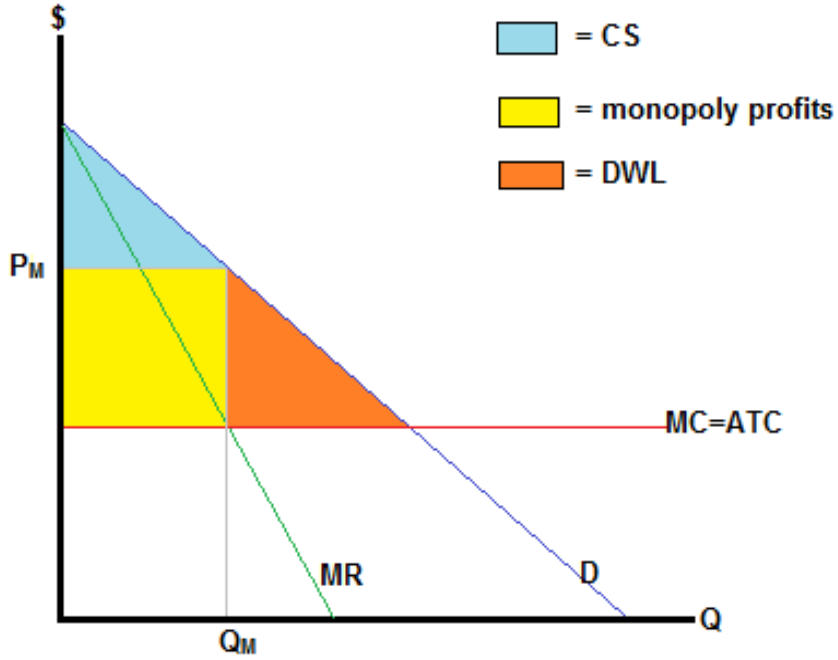
Case A: Shut down

Case B: Don't Shut Down

In case A because price falls below the AVC curve, the firm should shut down in the short run. However, in case B the firm should not shut down because price is above the AVC even though they are still incurring losses. In the short run firms are always stuck paying their fixed costs whether they shut down or produce. If they can at least cover their variable (i.e., avoidable costs) they should continue to produce.

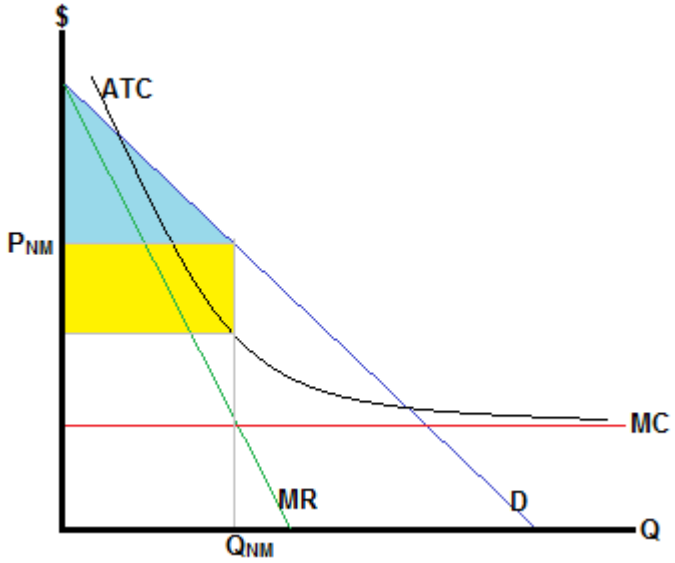
4. Monopolists

Part a:

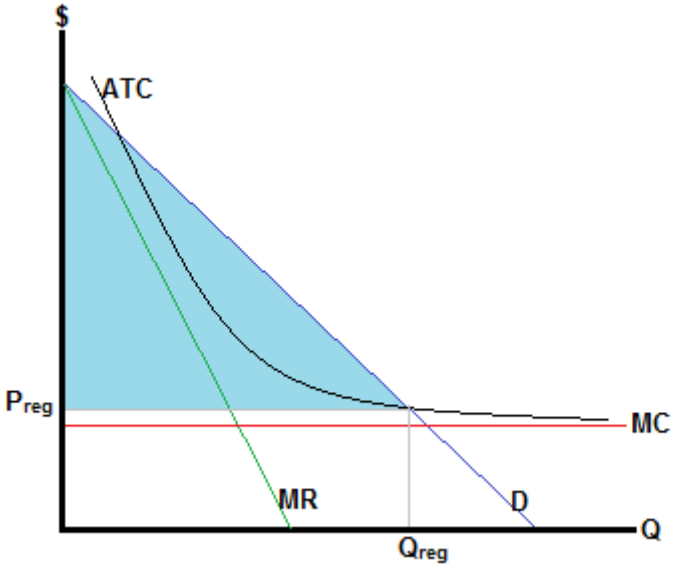


The monopolist will maximize profits by producing at the point which MR = MC. However, unlike the perfectly competitive firm, the monopolists faces a downward sloping demand curve thus the monopolist's price P_M is greater than MR.

Part b:



The graph above is for the unregulated natural monopolist. Because of the very high fixed costs in this industry the ATC is downward sloping over the entire relevant portion of output. Consumer surplus is given by the blue triangle and monopolist profits are given by the yellow rectangle.



Above is the graph for a regulated natural monopolist. The best price regulation scheme is to implement average cost pricing; that is, the price should be set according to where the ATC curve intersects the demand curve. Consumer surplus is given by the blue triangle and has increased relative to the unregulated case. Monopolist profits are zero.