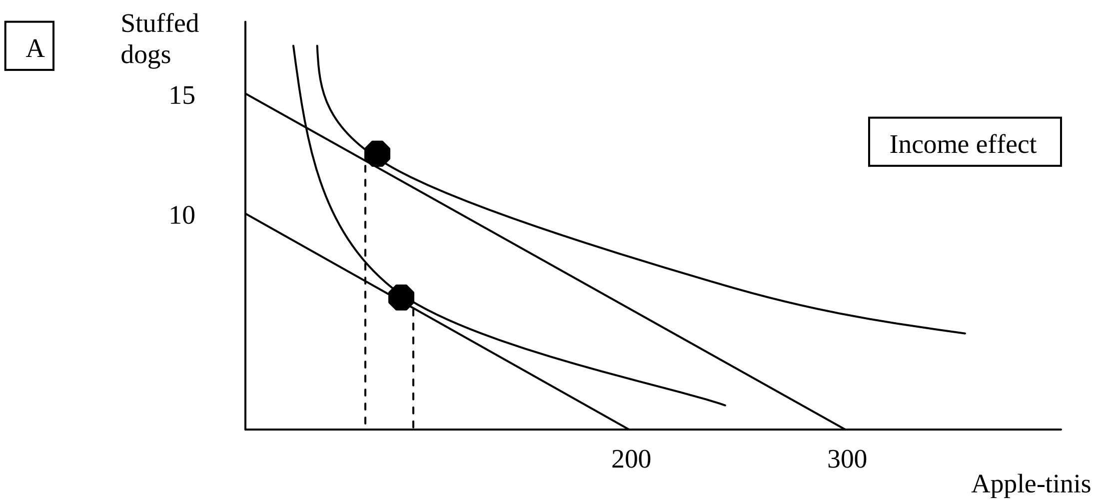
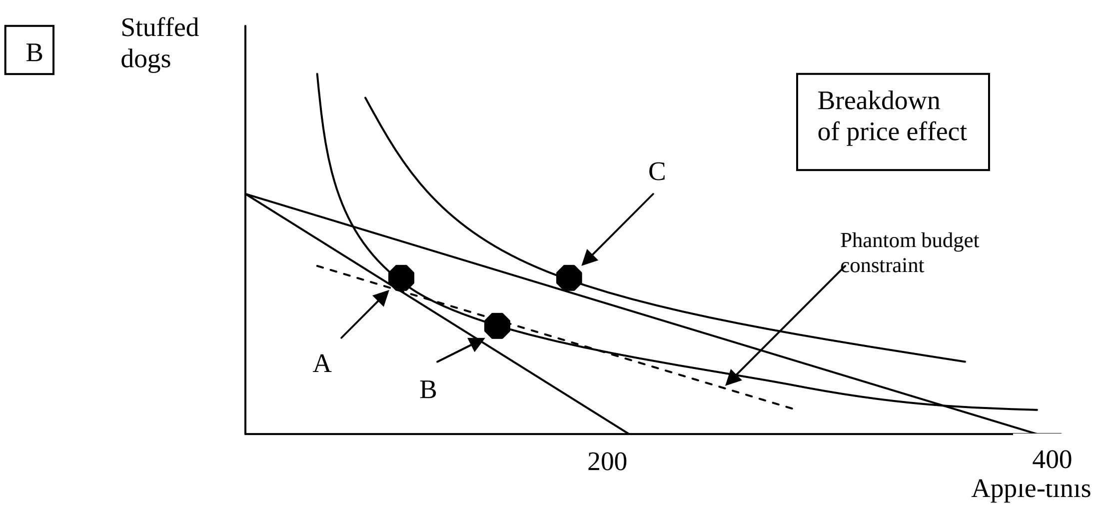
Prof. Charles Moul | Micro Principles | November 5, 2007

Exam 2 Answers

1. C	6. D	11. A	16. C	21. D
2. D	7. D	12. B	17. A	22. B
3. B	8. B	13. B	18. C	23. D
4. A	9. B	14. B	19. C	24. B
5. A	10. B	15. C	20. C	25. B

26. Zach Braff: Cultural touchstone or annoying twenty-something (15 points)



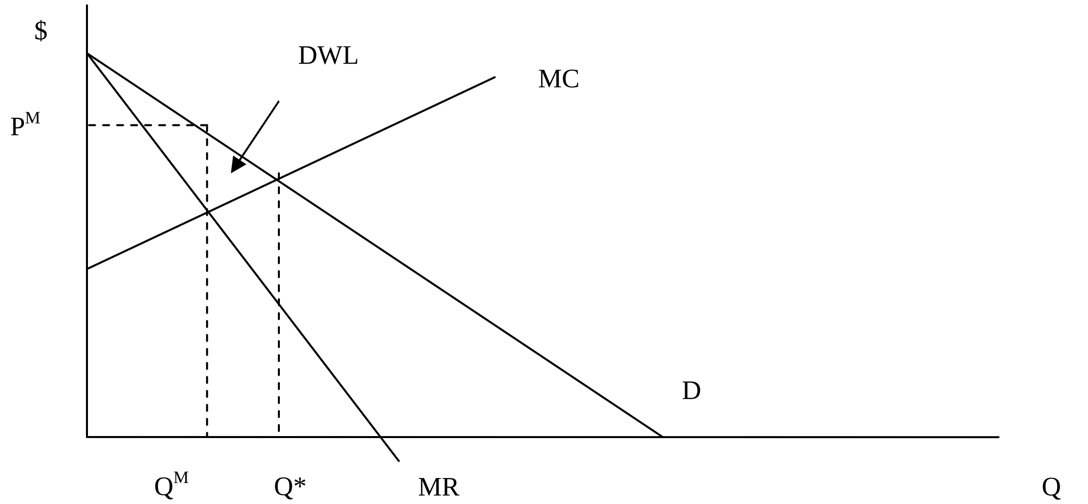


A to C: **total effect** of price change
A to B: **substitution effect** of price change
B to C: **income effect** of price change

As drawn, JD finds apple-tinis to be normal goods (revealed by income effect). It is entirely possible that the graph could be drawn so that JD finds apple-tinis to be an inferior good.

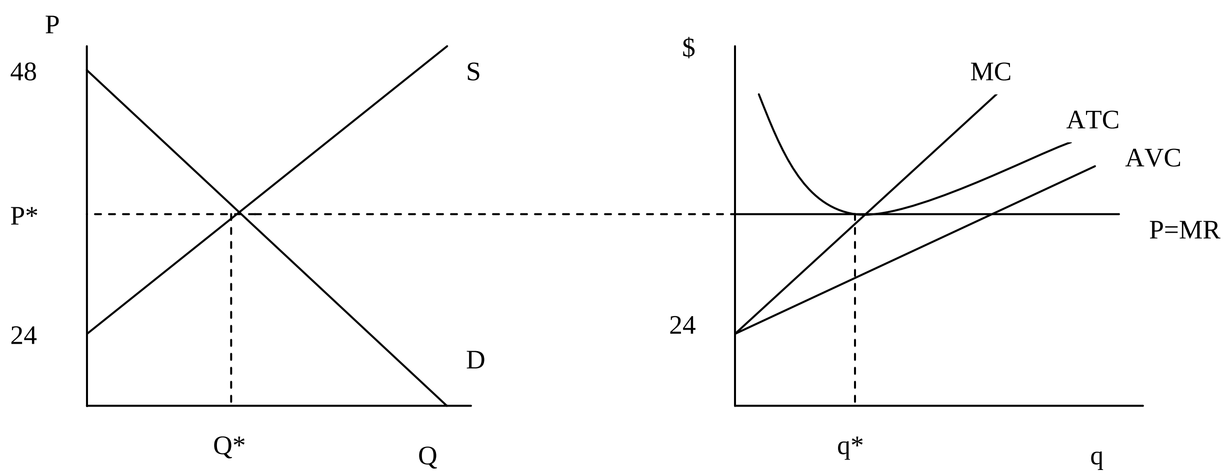
27. Bada Bang (35 points)

A.



B. Following the double-the-slope rule, MR = 48-2Q. Profits are therefore maximized at MR = $4 - 2Q^M = 24 + Q^M$ = MC, or $\mathbf{Q^M = 8}$. Tony then charges the highest price the market will bear: $\mathbf{P^M = 48 - 8 = 40}$ (which is $40,000 per week). That Tony is producing on the elastic portion of demand can be shown in either of two ways: Proving that Tony's price choice puts him on the top half of the linear demand curve, or calculating the actual elasticity. That elasticity is $\boldsymbol{\eta = (-1)(40/8) = -5}$, and /-5/>1, so elastic. Tony's profits are $\boldsymbol{\Pi = 40*8 - (8+24*8+0.5*(8^2)) = 88}$, that is, $88,000 per week. To calculate deadweight loss, one also needs the socially efficient quantity and the marginal cost (also marginal revenue) at Q^M. The allocatively efficient quantity occurs where marginal cost intersects demand: P = 48 – Q* = 24 + Q*, or Q* = 12. The monopolist's marginal cost is $MC^M = 24 + 8 = 32$, so **DWL = ½ (12-8) (40-32) = 16** ($16K/week).

C.



D. Under these assumptions, the long-run equilibrium price will equal the average total cost at the efficient scale (i.e., ATC's minimum). This minimum occurs at the intersection of the marginal cost and average total cost curves: MC = $24 + q^{Eff} = 8/q^{Eff} + 24 + ½\, q^{Eff}$ = ATC, which is solved at $\mathbf{q^{Eff} = 4}$. At $q^{Eff} = 4$, ATC equals 28(=24+4), so this will be the long-run price in this zero-profit equilibrium. When $\mathbf{P^{LR} = 28}$, market quantity demanded will be $Q^D = 48 - 28 = 20$, so 5 price-taking firms at the efficient scale will "fit" in the market ($\mathbf{Q^D/q^{Eff} = 20/4 = 5}$).