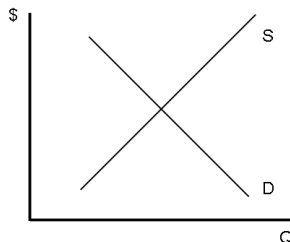


Name and Student ID: \_\_\_\_\_

Due 16 Sep 2014. Practice your answers elsewhere. Turn in these pages.

1. (7 points) Start with aggregated supply and demand curves, such as these:

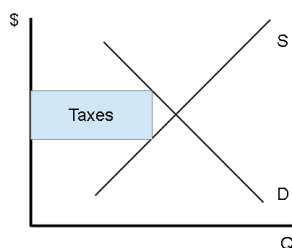


Show how (one or both) curves shift (in or out) and the new equilibrium. Comment on whether the equilibrium is stable (i.e., will price allow quantity supplied to match quantity demanded).

- (a) (1 point) S and D for tomatoes: GMO technology reduces the cost of producing tomatoes, but some customers fear GMOs will kill them
- (b) (1 point) S and D for restaurant labor: The government requires a “skills certification” for wait-staff but puts a ceiling on wages to keep costs down
- (c) (1 point) S and D for time awake: Show supply (and its elasticity) and the change in demand for time awake after starting classes at LUC.

- (d) (2 points) S and D for activities: Show S and D for time studying and time socializing before and after starting school (assume vacation was before). Write hours per week for each, based on old and new intersections, on the horizontal axis. NOW draw redraw in-school S&D curves and show the impact of a new (romantic) relationship on both types of time. (Alternative, you leave a romantic relationship.) Comment on the time value of love (i.e., is it worth the time?)

- (e) (2 points) The government has decided to tax cigarettes, for which supply is relatively elastic and demand is inelastic. Show who bears the “burden” of this tax in terms of whose surplus the “tax box” depletes by more. This example shows the tax box but note it’s showing S&D with “normal” elasticity:



Given your figure, why would *larger* cigarette companies want tax revenue to be spent catching cigarette tax evaders AND inspecting all cigarette manufacturing plants for health and safety regulations?

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2. (2 points) A business faces a (perfectly elastic) demand curve of  $p = 0.5$  and has a cost function of  $c(q) = q^2$ .

Write down the business' profit function ( $TR - TC$ ), and find its profit maximizing quantity. Also find the zero profit quantity.

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Draw supply and demand curves based on marginal revenue and marginal cost curves. Show the profit-maximizing and profit-eliminating quantities in relation to S&D.

3. (1 point) In Chapter 6 of *Armchair Economist*, Landsburg discusses the benefits *and* costs of policies. Discuss a new government proposal to subsidize vacations for students in terms of opportunity costs, the equilibrium of  $p$  and  $q$  for vacations and the impacts on student debt and achievement.

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