Economics 105

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Sign _____ Quiz #1: Postmortem

Part I: Medical services in Never-Never Land:

a. The equilibrium quantity sold (office visits) is _1,000___, the equilibrium price is $__60___ per patient visit, and the slope of the demand curve is –100/2500 = -1/25 = -.04_____.

b. Price elasticity of demand at e is (2500-1000)/1000 = 1.5 by the shortcut procedure. The long way is to calculate η = -dq/dp p/q = (25/1)x(60/1000) = 1.5.

2. A $20 tax per visit will raise the price paid by consumers to $70; suppliers will get $50; quantity is 750 and revenue is 750x$20 = $15,000. Consumer surplus is ($70-$60(750+1,000)/2 = $8,750

3. A $50 ceiling would create a shortage by pushing demand up to 1,250 but reducing supply to 750. Physicians may ration patient visits by imposing long waits on their patients. Physicians collect 750x$50 = 37,500 in fees; down from $60,000. Their costs may be reduced because they are supplying less; this reduction in producer surplus, estimated from the trapezoid under the supply curve, is (1000-750)*(50+60)/2 = 13,875.

4. The subsidy means that patients pay ½ of what the physicians get, so the supply curve shifts down by 50%; the new equilibrium involves 1,500 visits and a price paid by patients of $40; physicians receive $80 per visit. The cost to the government of the subsidy is 1,500x$40 = $60,000.

II. Graphs

2. 1: See Fig 19 on the Handout, but put point a at the center of the graph.
3. See Fig 14 of the Consumer Satisfaction Graphs Handout.

Note: Points were subtracted if any of the indifference curves on your graph had a positive slope or intersected (See Fig 5 of the Con Sat Graph Handout.

Honors Option: $X = M/3p_{x.}$

Notes: Past experience reveals that grades on the first test are a terrible predictor of the final course grade. Examples from 1997-98: The top scoring student earned a grade of 98 on Quiz 1 but received only a B+ for the semester. Another student with a Quiz 1 grade of 80 earned an A. The lowest scoring student on Quiz 1 earned a C+ for the semester.