

Problem Set #5

Sonoma State University

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Economics 305-Intermediate Microeconomic Theory

- (1) Suppose that you are paying your for your own education and that your college tuition is \$200 per credit hour. At that price you generally take 15 hours per semester at a cost of \$3,000. Now suppose your college changes to a policy of charging \$3,000 per semester regardless of the number of hours taken.
 - (a) How will this alter your budget line? Explain fully and show graphically.
 - (b) How will it affect your course load? Explain fully and show graphically.

- (2) Suppose you go to an all you can eat pizza buffet in which you pay \$15 and then you can consume all you want.
 - (a) Using an indifference curve and budget line, show your optimal consumption bundle.
 - (b) Discuss the equilibrium conditions at the optimal level of consumption.
 - (c) Would a utility maximizing consumer ever “over consume” pizza. That is would you consume pizza until it became and economic “bad?” Explain fully and show graphically.

- (3) A wage increase will induce both an income and substitution effect on the hours worked of a utility maximizing consumer.
 - (a) Explain the substitution effect of a wage increase on hours worked.
 - (b) Explain the income effect of a wage increase on hours worked.
 - (c) Using the labor leisure model, show the effect of a wage increase on hours worked if the substitution effect dominates the income effect. Explain fully and show graphically.
 - (d) Using the labor leisure model, show the effect of a wage increase on hours worked if the income effect dominates the substitution effect. Explain fully and show graphically.
 - (e) Using the labor leisure model, show the effect of a wage increase on hours worked if the income effect and the substitution effect are of equal size. Explain fully and show graphically.
 - (f) What are the implications of the your answers in c-e on the shape of the labor supply curve?

- (4) Assume that a parcel of land in Fresno County costs \$50,000 while an equivalently sized parcel of land in Sonoma County costs \$150,000. A nice house cost 200,000 to build while an average house cost \$50,000. Which area will have a greater number of nice houses? Explain fully.