

Name _____

1. a. (15 points) In the model of consumption over time, suppose an individual is a borrower and there is a *decrease* in the rate of interest. Can you say for sure whether the individual will consume more or less in the first period? Explain. Is it possible that the consumer may become a lender? Explain. Can you say for sure whether the consumer will be better or worse off? Explain.
- b. (10 points) In the model of insurance, how is an individual's demand for insurance determined? What variables does it depend upon?
2. a. (10 points) In the model of labor supply, there are two goods: consumption C with price $p = 1$ and leisure R with price w . The endowments of the two goods are $\bar{C} = 10$ and $\bar{R} = 24$. The utility function is $U(R, C) = .75 \ln R + .25 \ln C$. Determine the optimal amounts of consumption and leisure (as functions of w).
- b. (5 points) Using your answer in part a, determine the supply curve of labor.
- c. (10 points) For the model of labor supply in general (i.e. ignoring the special functions given above), explain the effect of an increase in the wage rate on the amount of labor supplied.
3. a. (13 points) Suppose a price ceiling (i.e. a *maximum* legal price) is imposed in a competitive market at a level below the market clearing price. Show the deadweight loss and explain in words the problem that is created. Is the deadweight loss likely to be larger than shown in your diagram? Explain carefully.
- b. (12 points) Using words and graphs carefully explain the meaning of producer's surplus (PS) and how it is derived. What is the relation of TVC, MC, the supply curve, profit, and producer's surplus? Explain.
4. a. (13 points) Using words and graphs, discuss the effects of granting a per-unit subsidy to firms in a competitive industry.
- b. (12 points) Using words and graphs, discuss the economic effects of imposing an import quota.