

THIRD TEST. ECON 237, SPRING 2016. NAME: _____
Fill in the blanks, and answer in the spaces provided. Show your work. Box your final answers.

1. Rawlsian redistribution. You are behind a Rawlsian ‘veil of ignorance’. Like everyone else, you have a $\pi_R = 1/3$ chance of being rich, in which case you will start off with a wealth of $w_R = 140$, and pay a tax of x , which will be redistributed evenly among the poor. You have a $\pi_P = 2/3$ chance of being poor, in which case you will start off with a wealth of $w_P = 20$, and receive a share of the redistributed wealth. Your von Neumann-Morgenstern utility function is $V(c) = -c^{-1}$, so your marginal utility of consumption is $V'(c) = c^{-2}$. Redistribution is ‘leaky’, such that only a fractional portion $\delta = 1/4$ of the wealth extracted from the rich can reach the poor, while the remainder is wasted.

a) Find the value of x that maximizes your expected utility, along with the resulting values of c_P (consumption if poor) and c_R (consumption if rich).

b) The metaphor of redistribution as a “leaky bucket” comes from Okun (1975). Give as much intuition as you can for what he meant by this.

2. Adverse selection. Let c_j be the expected medical costs of a person with health type j , and let b_{ij} be the willingness to pay of a person with risk aversion type i and health type j . Let x_{ij} be equal to one if a person of types i and j is willing to buy insurance, and zero otherwise. Assume that each type is equally likely. Assume that insurance companies can't discern the type of each potential customer, and that they are willing to offer insurance at a premium price p greater than or equal to expected costs.

a) Find x^* , which is the matrix that includes the most participants, of those participation matrices that can exist in an equilibrium. Also, given x^* , find the range of equilibrium premium prices p^* , and the deadweight loss D .

$$c = [42 \quad 84 \quad 126]$$

$$b = \begin{bmatrix} 50 & 90 & 130 \\ 75 & 135 & 195 \\ 100 & 180 & 260 \end{bmatrix}$$

b) Why are people willing to buy insurance even when the premium price is greater than the expected value of the claims they will make? (For example, why are there people in this problem with expected claims of 42 who are willing to pay 50, 75, or 100 for insurance?) In your explanation, clearly define 'risk aversion' and 'diminishing marginal utility', and show how they're connected.

3. Social Security benefits. Explain the basics of how Social Security benefits are calculated – specifically, the Averaged Indexed Monthly Earnings (AIME) and the Primary Insurance Amount (PIA). Sketch a rough diagram of how one depends on the other (the numbers you use don't have to be exactly right, but the axes should be labeled, and the shape should be about right).

4. George and Tideman. What does George (1890) propose? Explain how Tideman (2004) extends this proposal to combat tyrannies of the majority in democratic governments.

5. PPACA. Define and explain each of the following terms pertaining to the PPACA: (a) community rating. (b) guaranteed issue. (c) individual mandate. Further, explain the problems that would have occurred if the law had included provisions (a) and (b), but not (c).