

Homework 7
Principles of Economics
Prof. Sarah West
30 points

1. **(4 points)** Mexican workers are about one-fifth as productive as U.S. workers. What does this imply about the effects of a policy that would require multinational firms to pay all workers the same wage regardless of country? Explain.
2. **(4 points)** A friend of yours wants to start a summer house painting business. The going wage for painters is \$10.00 per hour. The rental rate for ladders and other painting equipment is \$25.00 per hour. If your friend wants to maximize profit, in what ratio should she hire labor and capital? Why? Explain.
3. **(6 points)**
 - a. Use a graph of the labor market to explain why discrimination whose source is the employer is not likely to be consistent with profit maximization.
 - b. Now, describe another theory of discrimination (that refers to the group that is the source of the discrimination) that is consistent with profit maximization. Why is it consistent, compared to the kind of discrimination in part (a) above?
 - c. Does the evidence on the determinants of the gap between men's and women's wages in the United States confirm or refute the presence of discrimination in labor markets? Explain, making sure that you discuss the relative contribution made by the determinants of the gap.
4. **(6 points)** An older edition of Mankiw's textbook provides the following information on the income distributions in Canada and Russia:

Country	Bottom Fifth	Second Fifth	Middle Fifth	Fourth Fifth	Top Fifth
Canada	7.5%	12.9%	17.2%	23.0%	39.3%
Russia	7.4%	12.6%	17.7%	24.2%	38.2%

- a. Graph the Lorenz curves for these income distributions on the same graph. Can you compare these Lorenz curves to determine which country has a more equal distribution? Explain.
- b. Explain how you would calculate and interpret the Gini coefficients associated with these distributions.
- c. Compared to Canada and Russia, is the income distribution in the United States more or less equal? Explain, using specific numbers associated with the U.S. income distribution in your answer.
- d. How has the U.S. income distribution changed over time? Be sure to include numbers from actual income distributions in your answer.

5. **(5 points)** Explain the effect of each of the following on U.S. Gross Domestic Product. Which component or components of GDP is or are affected and what happens to overall GDP?

Treat each of the following as separate from the rest.

- a. Your professor buys a house in Minneapolis.
 - b. Your mom, who lives in Boca Raton, Florida, buys a Sony television.
 - c. Best Buy reduces its inventory of televisions.
 - d. You go backpacking in Poland and spend money at a hostel.
 - e. Polish friends you met while backpacking visit you at Macalester and buy dinner at Shish.
 - f. The U.S. federal government pays construction firms to repair highways.
 - g. Dan Esrig, owner of The Grand Sandwich, buys a new walk-in refrigerator for the restaurant.
 - h. You buy a used car in Saint Paul.
 - i. You buy a new Toyota Prius in Saint Paul.
 - j. You buy a new Ford Focus in Saint Paul.
6. **(5 points)** To answer the following questions, use the World Development Indicators database available at the World Bank homepage (<http://databank.worldbank.org/ddp/home.do?Step=12&id=4&CNO=2>).
- a. What, in current U.S. dollars, was Honduras' 2009 Gross Domestic Product (GDP)? What was its Gross National Income (GNI)?
 - b. Why do you suppose the one number is bigger than the other (GDP vs. GNI)?
 - c. What was the growth (or contraction) rate (by what percentage did it change) in Honduras' real GDP between 2008 and 2009? Make sure you use the data base to choose an appropriate GDP deflator to use in your calculation.
 - d. Answer the same questions as in parts (a) and (b), but this time for Japan.