Eco 200: Homework 6  
Chap 20 & 21

**Chapter 20:**

1. 4th Edition: p. 451, Problems and Applications, Q8  
   3rd Edition: p. 449, Problems and Applications, Q8

   a. If people received cash instead of Medicaid benefits, it is unlikely that they would spend as much on health care. Instead, they would purchase other things they want or need.
   b. This suggests that we probably should not value in-kind transfers at the price the government pays for them. They may not be worth as much as their cost.
   c. Since the poor would prefer other things to Medicaid, it might be better to give them cash transfers instead.

2. 4th Edition: p. 452, Problems and Applications, Q11  
   3rd Edition: p. 449, Problems and Applications, Q10

Since John believes that labor supply is highly elastic, he will want less redistribution of income, because elastic labor supply means a greater distortion from redistributive policies. Advocates of a high minimum wage argue that the demand for unskilled labor is relatively inelastic so that a high minimum wage depresses employment only slightly. Critics of the minimum wage argue that labor demand is more elastic, especially in the long run when firms can adjust employment and production more fully. They also note that many minimum-wage workers are teenagers from middle-class families so that a high minimum wage is imperfectly targeted as a policy for helping the poor.

![Elastic Supply Curve](https://via.placeholder.com/150) ![Inelastic Supply Curve](https://via.placeholder.com/150)

**Chapter 21:**

Marginal Rate of Substitution

3. 4th Edition: p. 478, Questions for Review, Q3  
   3rd Edition: p. 477, Questions for Review, Q3

In Figure 5, the marginal rate of substitution (MRS) of one point on an indifference curve is shown. The marginal rate of substitution shows the amount of wine the consumer would be willing to give up to get one more pound of cheese.
Figure 5

Figure 6 shows the consumer's budget constraint and indifference curves for wine and cheese. The consumer's optimum consumption choice is shown as $w^*$ and $c^*$. Because the marginal rate of substitution equals the relative price of the two goods at the optimum, the marginal rate of substitution is $\frac{6}{3} = 2$.

Figure 6

Budget Constraints, Substitution & Income Effect

5. 4th Edition: p. 479, Problems and Applications, Q5
3rd Edition: p. 477, Problems and Applications, Q5

a. Budget constraint BC1 in Figure 13 shows the budget constraint if you pay no taxes. Budget constraint BC2 shows the budget constraint with a 15 percent tax.
b. Figure 14 shows indifference curves for which a person will work more as a result of the tax because the income effect (less leisure) outweighs the substitution effect (more leisure), so there is less leisure overall. Figure 15 shows indifference curves for which a person will work fewer hours as a result of the tax because the income effect (less leisure) is smaller than the substitution effect (more leisure), so there is more leisure overall. Figure 16 shows indifference curves for which a person will work
same number of hours after the tax because the income effect (less leisure) equals the substitution effect (more leisure), so there is the same amount of leisure overall.

Budget Constraints, Substitution

6. 4th Edition: p. 480, Problems and Applications, Q6
   3rd Edition: p. 477, Problems and Applications, Q6

Figure 17 shows Sarah's budget constraints and indifference curves if she earns $6 (BC1), $8 (BC2), and $10 (BC3) per hour. At a wage of $6 per hour, she works 100 – L6 hours; at a wage of $8 per hour, she works 100 – L8 hours; and at a wage of $10 per hour, she works 100 – L10 hours. Because the labor supply curve is upward sloping when the wage is between $6 and $8 per hour, L6 > L8; because the labor supply curve is backward sloping when the wage is between $8 and $10 per hour, L10 > L8.