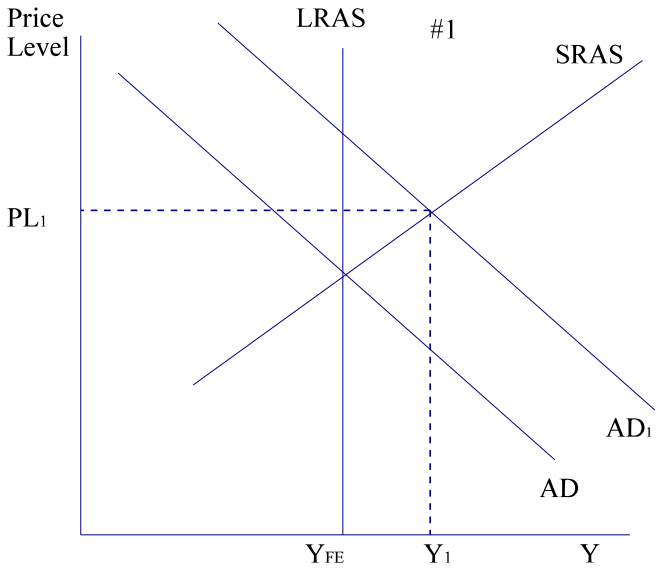
Answer Key for the Non-graded Homework Assignment #7A.

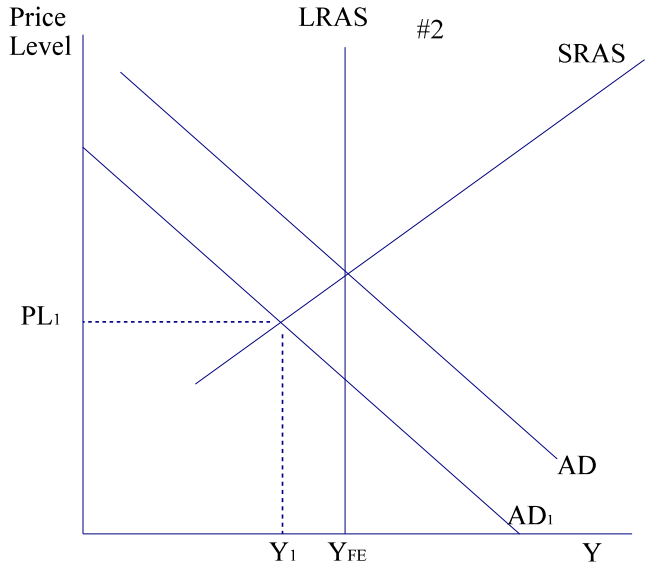
For this exam ONLY, draw the SRAS curve as an upward sloping line which moves every time the LRAS curve moves. In Chapter 11, we will prove that is not the correct shape. The equilibrium is where the SRAS curve crosses the AD curve. The LRAS curve is irrelevant to where the equilibrium is.

1) (20 points) Draw the SRAS/LRAS/AD diagram. Illustrate the effects of an increase in government spending. Explain why the curve(s) moved as drawn. What happens to GDP, inflation, and the unemployment rate?



Since the government is demanding more goods and services, the total demand for goods and services increases. Therefore, AD increases, moving it to the right. This causes GDP to increase. Since the price level increased, that means inflation increased. Since GDP is now greater than GDP at full employment, Y_{FE}, the unemployment rate has now gone down to below the unemployment rate at full employment.

2) (20 points) Draw the SRAS/LRAS/AD diagram. Illustrate the effects of a decrease in the MPC. Explain why the curve(s) moved as drawn. What happens to GDP, inflation, and the unemployment rate?

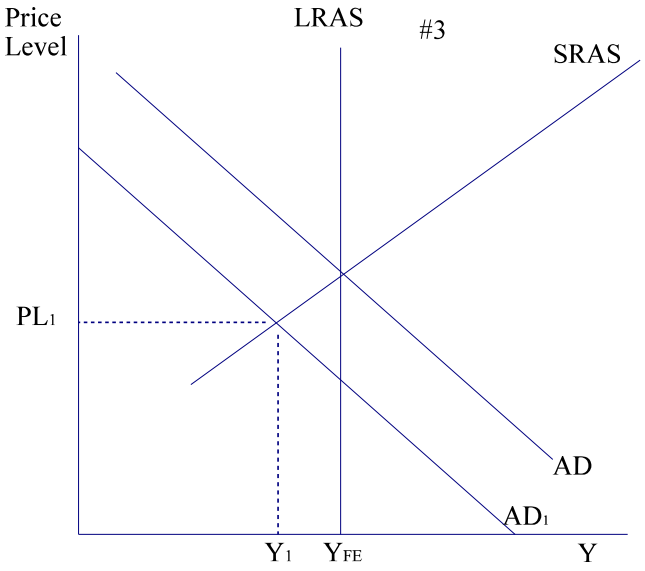


If the MPC goes down, then people are consuming less. Therefore, the total demand for goods and services decreases. Thus, the AD moves left. This causes GDP to decrease. Since the price level decreased, that means inflation decreased. Since GDP is now less than GDP at full employment, Y_{FE}, the unemployment rate has now gone higher than the unemployment rate at full employment.

3) (20 points) Draw the SRAS/LRAS/AD diagram. Illustrate the effects of an increase in interest rates. Explain why the curve(s) moved as drawn. What happens to GDP, inflation, and the unemployment rate?

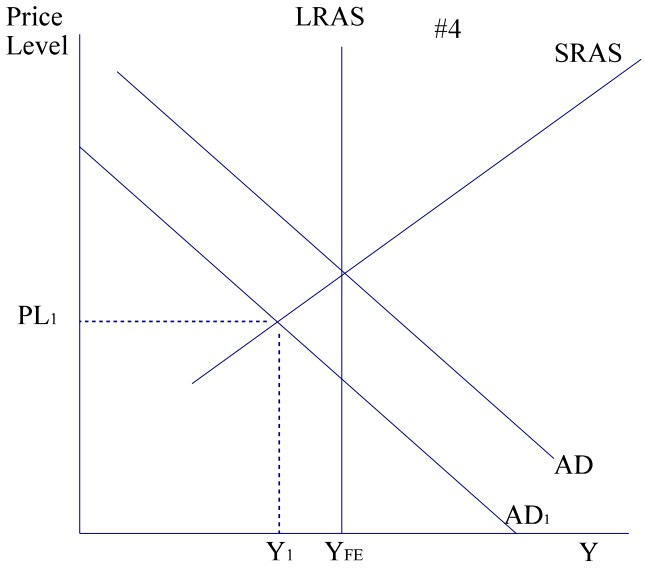
When interest rates increase, it becomes more expensive to borrow money. Therefore, fewer buildings are built (less investment) and fewer expensive products (like cars) are made. Since investment drops a lot and consumption drops a little, the total demand for goods and services, AD decreases and moves left.

See the graph to the right. This causes GDP to decrease. Since the price level decreased, that means inflation decreased. Since GDP is now less than GDP at full employment, Y_{FE}, the unemployment rate has now gone higher than the unemployment rate at full employment.



4) (20 points) Draw the SRAS/LRAS/AD diagram. Illustrate the effects of a decrease in Canada's GDP. Explain why the curve(s) moved as drawn. What happens to GDP, inflation, and the unemployment rate.

When the Canadian economy decreases, they are poorer. So, they buy less. Some of what they stop buying will be made by us. Therefore, our net exports, X, decreases. Thus, the total demand for goods and services in the USA decreases, moving AD to the left. See the graph below. This causes GDP to decrease. Since the price level decreased, that means inflation decreased. Since GDP is now less than GDP at full employment, Y_{FE}, the unemployment rate has now gone higher than the unemployment rate at full employment.



5) (20 points) Explain why the AD curve slopes down and the LRAS curve is vertical.

The AD curve slopes down because of three effects. The first is the interest rate effect. When prices go up, we will prove later that it causes interest rates to go up. When interest rates go up, investment will decrease a lot and consumption will decrease some. Therefore, the demand for GDP will decrease. The second effect is the real balance effect. When prices go up, some assets lose value. Any asset like a bond which pays a predetermined interest rate will lose value. (But assets like stocks gain value.) Since some consumption comes from assets, especially for the elderly, the demand for GDP will decrease. The third effect is the open economy effect. If we have a fixed exchange rate and our prices increase, then foreign products look cheaper to both us and them. So, our imports increase and our exports decrease. Both of these decrease net exports and the total demand for GDP. So, for all three reasons, when prices go up, the demand for GDP decreases. Note: You cannot say that people cannot buy as much. That statement assumes people's incomes do not increase. However, since paying for something gives somebody income, when all prices go up, on average all incomes go up the same amount.

The LRAS assumes that anything can change. Therefore, if we are not at full employment, wages will adjust to bring us back to full employment. This means GDP will be at Y_{FE}. So, we have a vertical line at Y_{FE}.