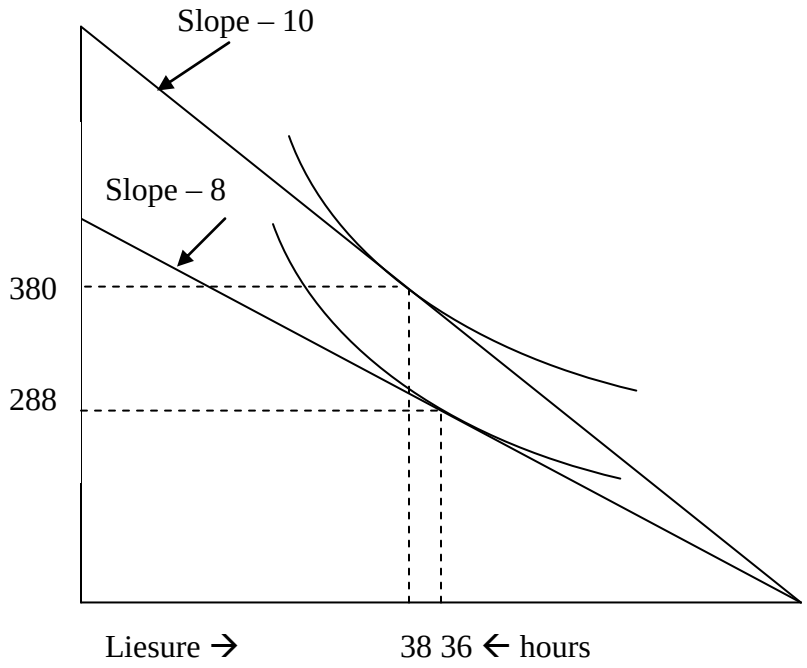
UNIVERSITY OF ESSEX Autumn Term 2011/12
DEPARTMENT OF ECONOMICS T Hatton

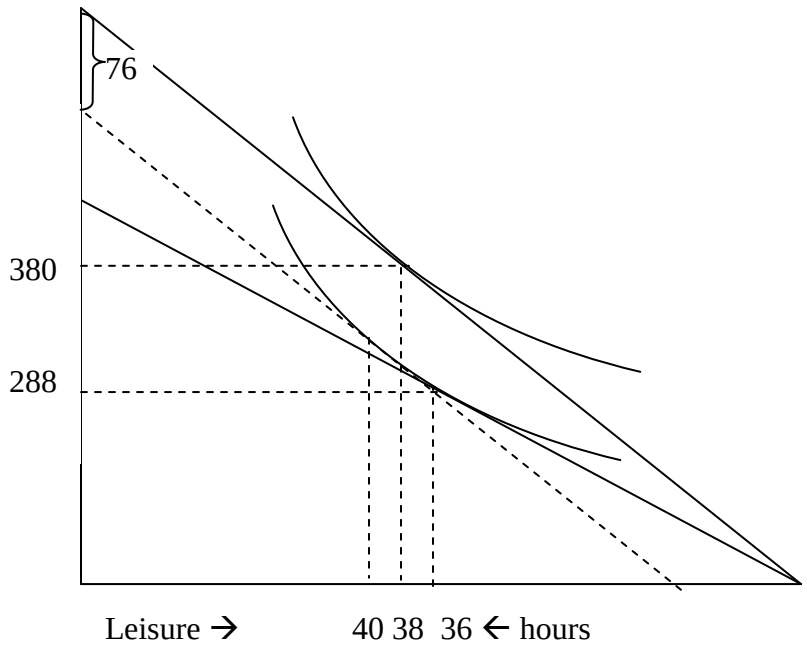
EC111 Class Exercise 8: Outline Answers

1)
a)



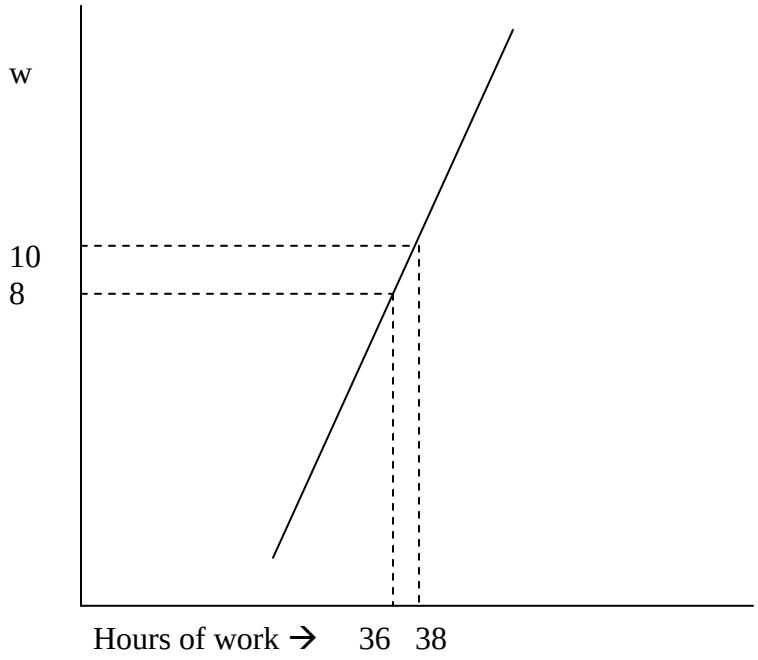
Hours of work, measured from the right, is 36 originally and 38 after the wage change
Income is £288 before the wage change and £380 after the wage change.

b)



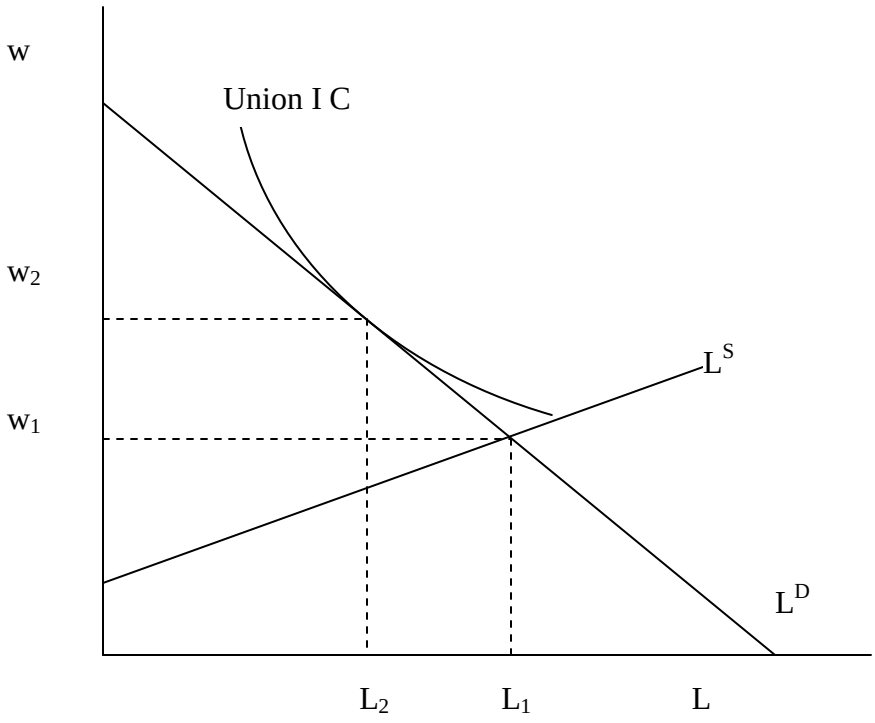
In the alternative situation, Justine works 40 hours and has an income of 40*£10 – £76 = £324. If she is just as well off as she was initially we know that this point is just tangent to the old indifference curve. The substitution effect is to increase hours of work by 4 (from 36 to 40). The income effect is the shift from the dotted budget line to the new budget line, reducing hours of work from 40 to 38. So the income effect is – 2 hours.

c)



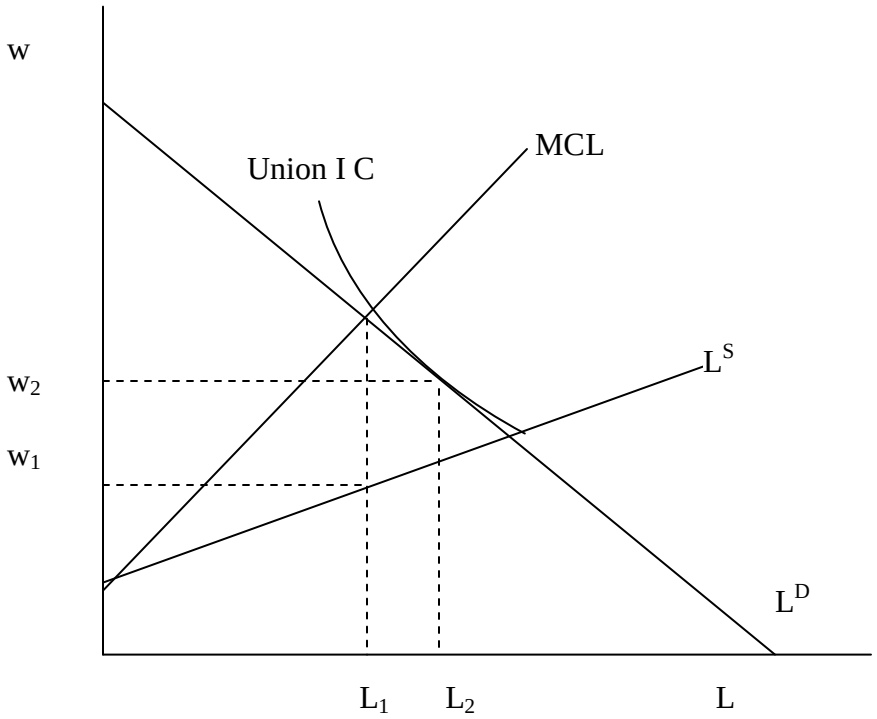
Labour supply (the supply of hours of work) is now measured from left to right. The supply curve is upward sloping as the wage increase and hours of work increased. The elasticity of labour supply is $\frac{\Delta H / H}{\Delta w / w} = \frac{(38-36)/36}{(10-8)/8} \approx 0.22$

2.



The equilibrium wage in the market is w_1 and employment is L_1. If the union has the power to choose a point on the demand curve it raises the wage to w_2 and employment falls to L_2. Workers from other industries would like to get jobs in this industry but employment has fallen. So those workers who are displaced move elsewhere, which (assuming other labour markets are competitive) pushes down the wage in other industries.

b)



In the absence of the union the firm(s) set the marginal product of labour (on the L^D curve equal to the marginal cost of labour (MCL). The wage is w_1 and employment is L_1. Suppose that the union fixes the wage at w_2. The wage increases to w_2 and employment increases to L_2. More workers are employed in this industry, reducing labour supply elsewhere. So (assuming other labour markets are competitive) the wage in other industries increases. Note that if the union had picked a point further up the demand curve then the wage would have risen more and employment in this industry could have fallen. In that case labour supply elsewhere increases and the wage in other industries falls.