

Hints for Assignment 2

1a. Determinants that influence price elasticity of demand:

- (1) luxury or necessity: luxury tends to have higher price elasticity of demand
- (2) price to income ratio: the goods that has higher price-income ratio tends to have higher price elasticity of demand
- (3) substitution: the goods that has more substitutes tends to have higher price elasticity of demand
- (4) time horizon: the longer time is, the higher price elasticity of demand will be.

Try to think problem 1.a. from the perspectives of determinants of price elasticity of demand.

1.c. If you are familiar with partial derivative, then e.g. in price elasticity of demand $E_d = \frac{\Delta Q}{\Delta P} * \frac{P}{Q}$,

$\frac{\Delta Q}{\Delta P}$ refers to the partial derivative of Q with respect to P, i.e. $\frac{\partial Q}{\partial P}$. If you are not familiar with that concept, then just be clear about the definitions on each kind of elasticity and use Midpoint formula to compute.

2. To find out the utility maximizing combination of goods, use the same method (Method 2) of problem 1 in in-class exercise.

3. a. First, think of the differences between people on vacation and local residents, for example, local residents are more familiar with purchasing environment there, so they know more substitutes to different kinds of goods. Also, people on vacation usually don't make money during the vacation, while local residents are working to increase their income. You can think more of their differences, and then use the relevant elasticities to explain it. Recall that we have learnt three kinds of elasticities, i.e., price elasticity, cross price elasticity and income elasticity, think of what kind of elasticity you want to use before explanation.

3. b. Recall that when we talk about the relation between total revenue and price, what kind of elasticity we need to refer to. This is similar to the last question in Quiz 2.

4. Receiving less financial aid has the same meaning as you need to spend more.

5. a. Similar to the problem 1 in in-class exercise, you need to calculate MU, MU/P and go through the table.

c. Remember what kind of relation between price and demand that the law of demand tells us, and then use the principle of rational choice to verify this relation. A property you will need to use is: the marginal utility of one goods is decreasing as we consume more of it..