

Self-Test 2 (KEY)

Consumer Choice & Demand

The tasks in this self-test are designed to be solvable by any student who has mastered the material. The answers provided are written instructionally to walk you through the problem-solving process for each task. A well-prepared student should score between 8 and 11 out of 12 without assistance from AI or others. A 12 out of 12 — without help — requires outlier performance or sheer luck. This self-test is optional, and your result will not count towards your grade. Direct any questions to your section's TA.

1. According to the course FAQ, where can students find the slides for the video tutorials and video lectures?
 - A. They are posted on the course website. *[Not the slides for video lectures]*
 - B. They are available in the YouTube description of each video.** *[The FAQ explicitly states that slides for video lectures and tutorials are available in the YouTube description of each video]*
 - C. They are posted on the Telegram channel. *[The Telegram channel is used for updates and reminders, not for posting slides]*
 - D. They are the same as those used in-person lecture. *[The FAQ explicitly warns that video lecture slides may not match the in-person lecture slides and should not be used interchangeably]*
2. According to the course FAQ, to whom should you send your MC if you miss a class?
 - A. To the professor and to the TA.
 - B. To the professor only.
 - C. To the TA only.** *[The FAQ states that TAs handle attendance and the professor is not authorized to access medical records]*
 - D. To no one.
3. Which of the following statements is a direct implication of the Law of Demand?
 - A. Consumer preferences affect the prices of goods. *[This may be true, but it is not an implication of the Law of Demand]*
 - B. Consumer preferences for a good are not affected by the prices of substitute goods. *[Prices of substitutes do affect demand, but this is unrelated to the Law of Demand]*
 - C. Consumer income positively affects quantity demanded. *[This is a demand shifter, not the Law of Demand]*
 - D. A higher price of a good leads consumers to buy less of it.** *[The Law of Demand — price and quantity demanded are inversely related, all else equal]*
4. Which of the following does NOT cause the demand curve for a normal good to shift to the right?
 - A. A rise in consumer income. *[The demand for normal goods increases with income]*
 - B. A fall in the price of the good itself.** *[A price change causes a movement along the demand curve, not a shift]*
 - C. A rise in the price of a close substitute. *[A more expensive substitute makes the good relatively cheaper, increasing its demand and shifting the curve right]*
 - D. A fall in the price of a complementary good. *[Cheaper complements increase demand for the good]*

5. Which of the following factors is most likely to increase the quantity demanded of umbrellas?
- A. **A fall in the price of umbrellas.** *[A decrease in the own price directly increases quantity demanded — this is the Law of Demand]*
 - B. A fall in the price of raincoats. *[A fall in a substitute's price shifts demand for umbrellas to the left]*
 - C. A rise in the incomes of all consumers. *[Income shifts the entire demand curve]*
 - D. A fall in the incomes of all consumers. *[Same reasoning as above]*
6. Which of the following best describes how elasticity is measured?
- A. The sum of the proportional changes in two variables. *[Elasticity is not calculated by adding proportional changes]*
 - B. **The ratio of the proportional changes in two variables.** *[Direct application of the definition]*
 - C. The product of the proportional changes in two variables. *[Elasticity is not calculated by multiplying proportional changes]*
 - D. The difference between the proportional changes in two variables. *[Elasticity is not calculated by subtracting proportional changes]*
7. Which of the following goods is likely to have the most inelastic demand?
- A. Marijuana. *[Marijuana is one of the least addictive drugs and has many relatively close substitutes]*
 - B. **Natural gas.** *[Natural gas has very few substitutes for heating and cooking, making demand highly inelastic]*
 - C. Coca-Cola. *[Coca-Cola has many close substitutes such as Pepsi and other soft drinks, making demand elastic]*
 - D. Special-K bars. *[Special-K bars have many substitutes among cereal and snack products, making demand elastic]*
8. Which of the following is true for a linear demand curve?
- A. **Demand becomes more inelastic as quantity increases.** *[As we move down a linear demand curve, price falls and quantity rises. The elasticity formula shows that the ratio of percentage changes shifts in favour of a smaller quantity response, making demand increasingly inelastic]*
 - B. Demand becomes less inelastic as quantity increases. *[The opposite of what happens. Moving down a linear demand curve takes you from the elastic region toward the inelastic region]*
 - C. The elasticity of demand remains constant as quantity increases. *[Constant elasticity holds for specific non-linear demand curves, not for linear ones]*
9. Suppose that the price elasticity of demand for cars at the current price is -1 . What should the car manufacturer do to increase their revenue?
- A. Increase the price of cars. *[With unit elasticity, a price increase leads to a proportional decrease in quantity demanded, leaving revenue unchanged]*
 - B. Decrease the price of cars. *[With unit elasticity, a price decrease leads to a proportional increase in quantity demanded, leaving revenue unchanged]*
 - C. Sell more cars. *[Selling more requires lowering the price, which with unit elasticity leaves revenue unchanged]*
 - D. Sell fewer cars. *[Selling fewer requires raising the price, which with unit elasticity leaves revenue unchanged]*
 - E. **None of the above will increase their revenue.**

10. Suppose the price elasticity of demand for spanakopita is -2 when its price is measured in Singapore dollars. Given that 1 Singapore dollar is approximately equivalent to 0.67 euros, what is the price elasticity of demand for spanakopita when its price is measured in euros?

- A. -2×0.67 .
- B. $-2 / 0.67$.
- C. **-2 .**
- D. $1/2$.

[Elasticity is a pure number with no units. When computing $\% \Delta P = \Delta P / P$, the currency units in the numerator and denominator cancel out. Therefore, switching from SGD to EUR leaves the elasticity unchanged]

11. Suppose that Samuel's income elasticity for bread is -2 . What will happen to his quantity demanded for bread if his salary decreases by 50%?

- A. It will halve.
- B. It will remain constant.
- C. **It will double.**
- D. It will triple.

[Since Samuel's salary decreases by 50%, his quantity demanded will increase by 100%, because income elasticity for bread is -2 , $\% \Delta Q / (-50\%) = -2$, so $\% \Delta Q = 100\%$]

12. Which of the following is the case for a good with a cross-price elasticity of -0.5 ?

- A. The good is a substitute. *[Substitutes have positive cross-price elasticity, not negative]*
- B. **The good is a complement.** *[A negative cross-price elasticity indicates complementary goods]*
- C. The good is inferior. *[This describes income elasticity, not cross-price elasticity]*
- D. The good has inelastic demand. *[This describes own-price elasticity, not cross-price elasticity]*

Good afternoon! I always tell my students that before they ask their instructors, TAs, or their classmates any question, they should first have made some reasonable effort to find the answer on their own. The reason is because, more and more, I find students to exhibit various amounts of 'intellectual learned helplessness'. Naturally, when your brain comes across a problem, it is programmed from evolution to try and find the easiest and least costly way to overcome it (the path of least resistance). For intellectual problems, the easiest way always is to find the answer in the key or ask somebody else. This, however, trains the brain to stop thinking every time it comes across something non-trivial and get into a "seek-help-from-somewhere-else mode". When this becomes a habit, independent thinking shuts down completely, leadership abilities deteriorate, and the individual cannot function unless under supervision. I have seen this happening to even exceptionally smart individuals. Please, do not allow this to happen to you, too. If you have a question, push your brain to come up with the answer. Watch/read this part again, and even for a third, fourth, fifth time. Try to think, do your own research, or discuss it with your peers. If the problem is still above your own abilities, do not be shy to ask your instructor: "Professor, I have this question... I thought about it like this... and like that... I searched there... but it still seems that I need your help". Then, we will be glad to give you a hint to help you find the answer, but we will be gladder that you did the work and that next time your brain will be stronger and more independent. Kosmas

Please report any typos, mistakes, or suggestions for improvement to kmarinakis@smu.edu.sg.