BACHELOR OF ECONOMICS
THAMMASAT UNIVERSITY

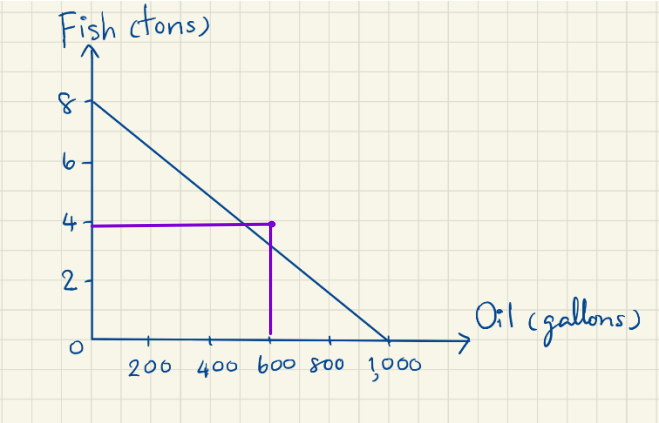
EE 211 Principles of Microeconomics

Online Quiz 1 (A)

Instructions (Please read carefully.)

1. Each of you will receive the quiz question from your email (via google classroom), but I will give you a password to open the file at 9:35 am so that everyone starts the quiz at the same time.
2. You can either write your answers on papers and scan/take pictures of your answers, or write them using a tablet. In either case, you need to save all pages in ONE single pdf-file and name your file in the following format: Firstname_studentID_quiz1A.pdf. For instance, Phatta_6404645555_quiz1A.pdf.
3. You have 25 minutes to complete your quiz, and you will have 15 minutes for taking pictures, save the file, and upload the file to google classroom. That is, you need to **upload your answers BEFORE 10:15 am**.
4. While taking your quiz, please turn on your video camera but mute your microphone. Do not consult with other students or any other source. This is the honor system, and I believe in your integrity.
5. In the case that you have any technical problems (e.g. internet connection problem), which results in a submission delay, please capture your screen or take a picture of error messages for a proof.
6. If you fail to submit your quiz in time (without any proof of technical problems), you will receive zero score for that quiz.

Question 1 Suppose Mr. A can produce fish and oil on his land. Assume that his PPC is given in the graph below, where the x-axis represents the quantity of oil and y-axis represents the quantity of fish.



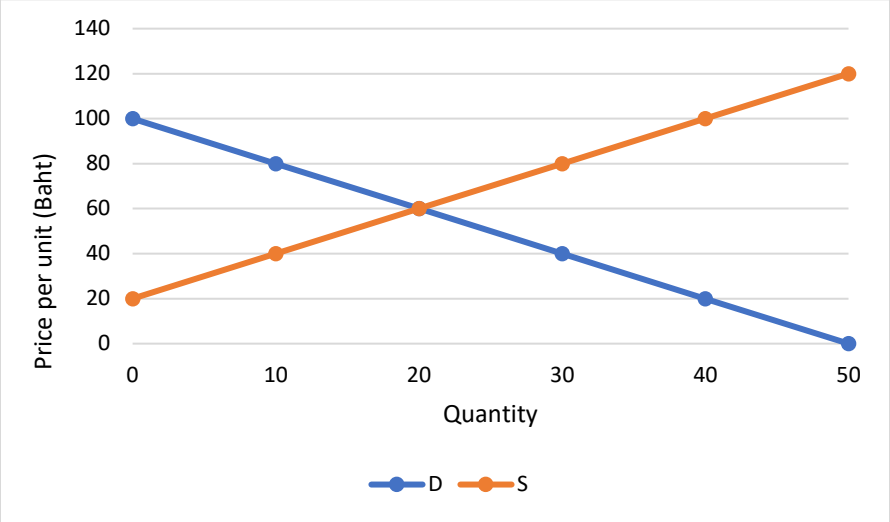
1.1. (2 points) Is it possible for Mr. A to produce 600 gallons of oil and 4 tons of fish? Explain.

Not possible.

1.2.(8 points) What is the opportunity cost of a gallon of oil? If one of Mr. A's friends offers to give him 1 ton of fish in exchange for 100 gallons of oil, should Mr. A take the offer? Explain.

- To produce 1,000 gallons of oil, Mr. A needs to give up 8 tons of fish.
  ⇒ Opportunity cost of 1 gallon of oil = 0.008 ton of fish.
- Opportunity cost of 100 gallon of oil = 0.8 ton of fish.
  So, he should TAKE the offer.

Question 2 Consider the demand and supply schedules for alcohol gel in the following graph.

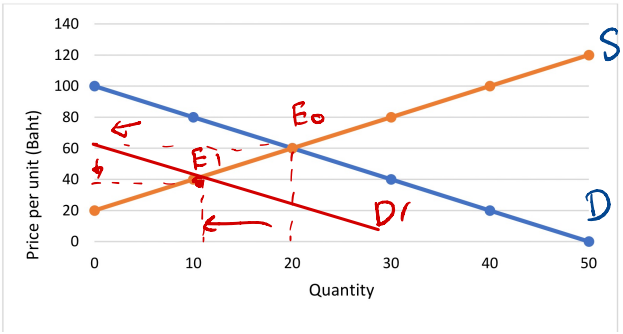


2.1. (5 points) What are the equilibrium price and equilibrium quantity in this market? At a price below this equilibrium price, is there excess demand or excess supply? Explain briefly.

$P^* = 60$, $Q^* = 20$

At $P < P^*$, there is excess demand.

2.2. (5 points) Suppose that the price of alcohol spray, which is a substitute of alcohol gel, decreases, draw another graph to illustrate the change in equilibrium (no need to worry about the scale). Discuss what happens at the initial equilibrium price in (2.1).



D decreases

$P^* \downarrow$ & $Q \downarrow$