



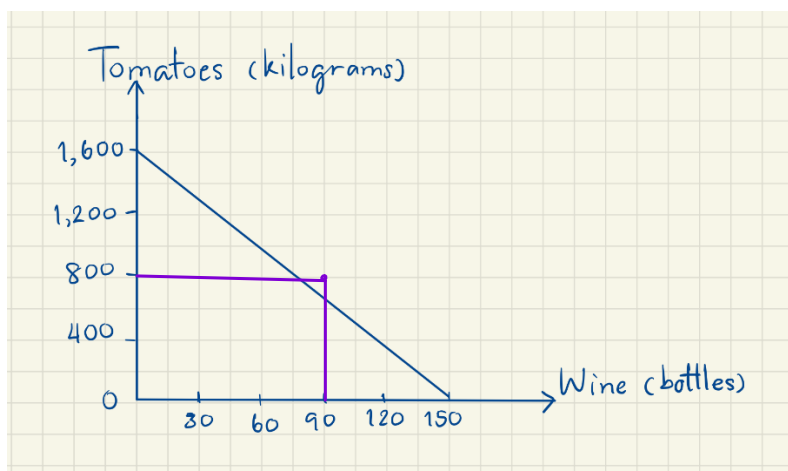
EE 211 Principles of Microeconomics

Online Quiz 1 (B)

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 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_quiz1B.pdf**. For instance, Phatta_6404645555_quiz1B.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. B can produce tomatoes and wine on his land. Assume that his PPC is given in the graph below, where the x-axis represents the quantity of wine and y-axis represents the quantity of tomatoes.



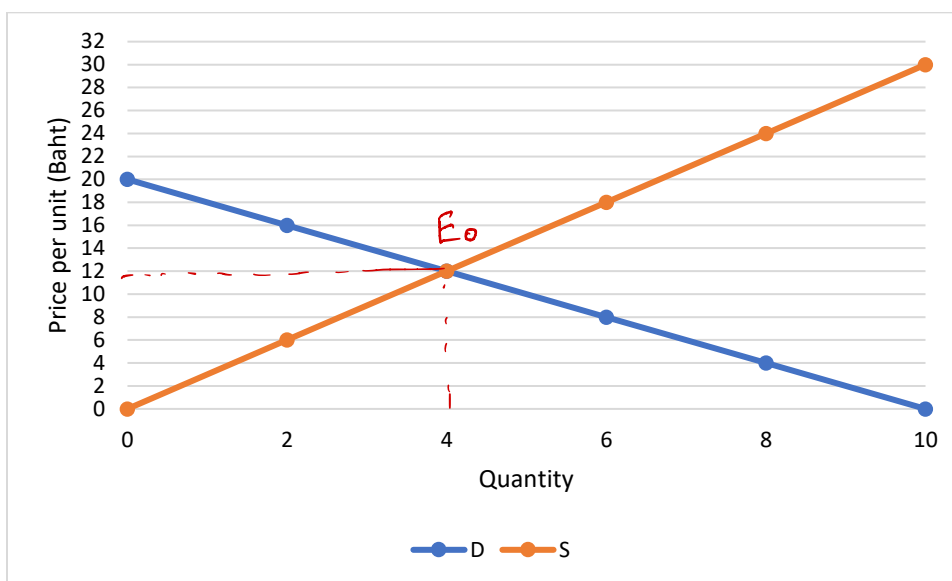
1.1. (2 points) Is it possible for Mr. B to produce 90 bottles of wine and 800 kilograms of tomatoes? Explain.

Not possible b/c it's located outside PPC.

1.2. (8 points) What is the opportunity cost of a ^{bottle} gallon of wine? If one of Mr. B's friends offers to give him 100 kilograms of tomatoes in exchange for 10 bottles of wine, should Mr. A take the offer? Explain.

- To produce 150 bottles of wine, Mr. B needs to give up 1,600 kilos of tomatoes
 \Rightarrow Opportunity cost of 1 bottle of wine
 $= \frac{1,600}{150} = 10.67$ kg. of tomatoes.
 - For 10 bottle of wine, he needs to give up 106.7 kg. of tomatoes.
- So, he should NOT take the offer.

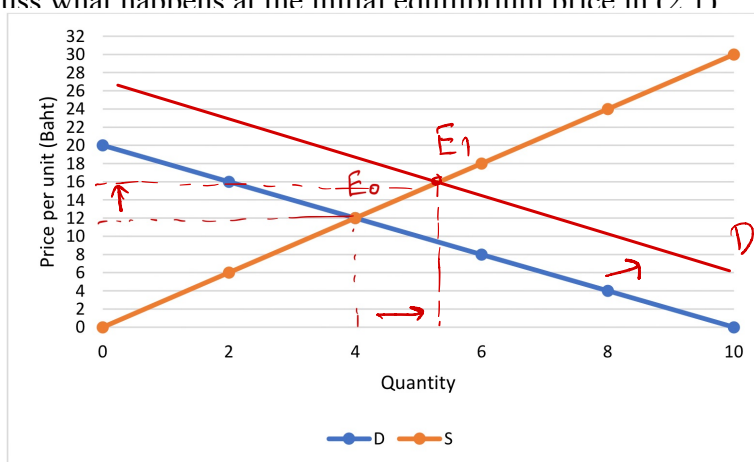
Question 2 Consider the demand and supply schedules for shampoo in the following graph.



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

$P^* = 12, Q^* = 4$
 At $P > P^*$, there is excess supply.

2.2. (5 points) Suppose that the price of hair conditioner, which is a complement of shampoo, 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 increases.
 $Q^* \uparrow, P^* \uparrow$