

Intro Micronomics | Homework B Demo

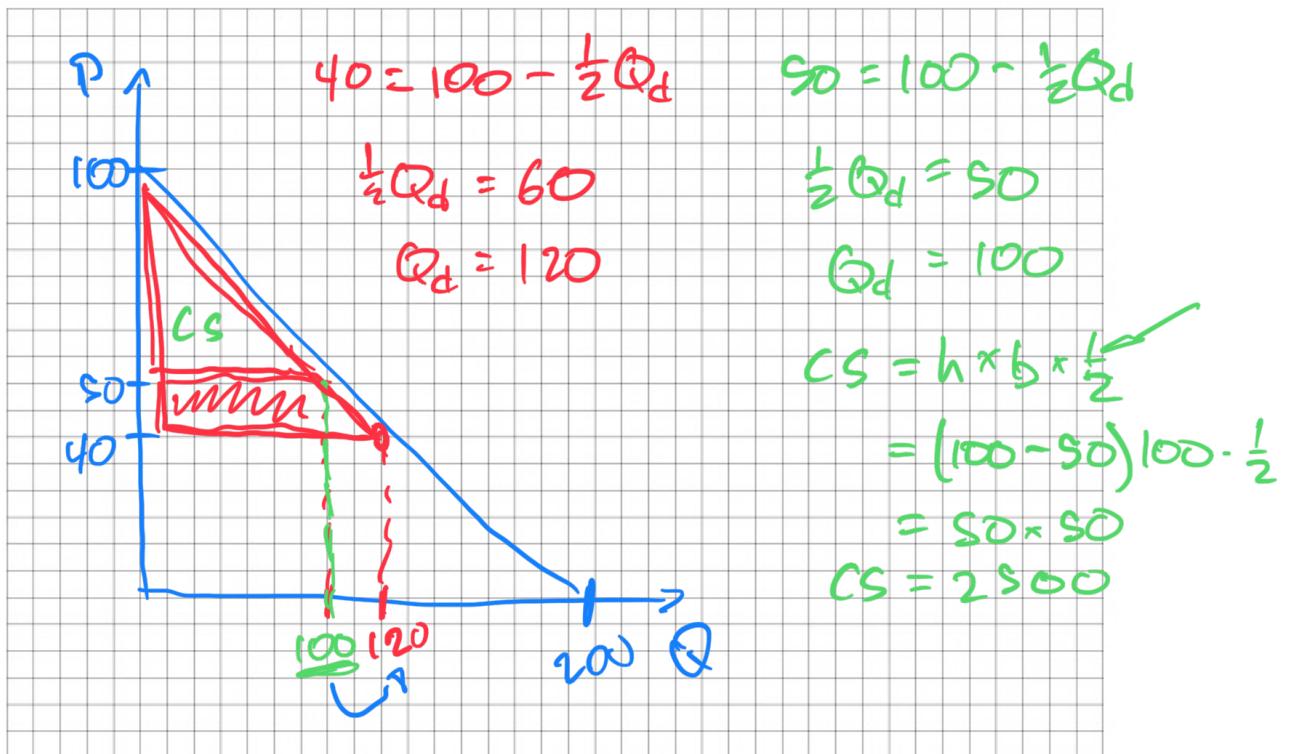
Homework is designed to both test your knowledge and challenge you to apply familiar concepts in new applications. Send me your questions at taylorjweidman@pitt.edu. Answer clearly and completely; show your work so I can understand your thought process for partial credit; you are welcomed and encouraged to work in groups as long as your work is your own.

Question 1

Preferences for butter beer can be represented by the following demand curve:

$$P_d = 100 - \frac{1}{2}Q_d \quad 0 = 100 - \frac{1}{2}Q \Rightarrow \frac{1}{2}Q = 100 \Rightarrow Q = 200$$

Use a graph to plot this demand curve, including the quantity demanded at both 40 galleons and 50 galleons. Then find and label the consumer surplus at these prices.



$$CS = (100 - 40) \times 120 \times \frac{1}{2}$$

$$= 60 \times 60$$

$$CS = 3600$$

CS at 40 galleons: 3600

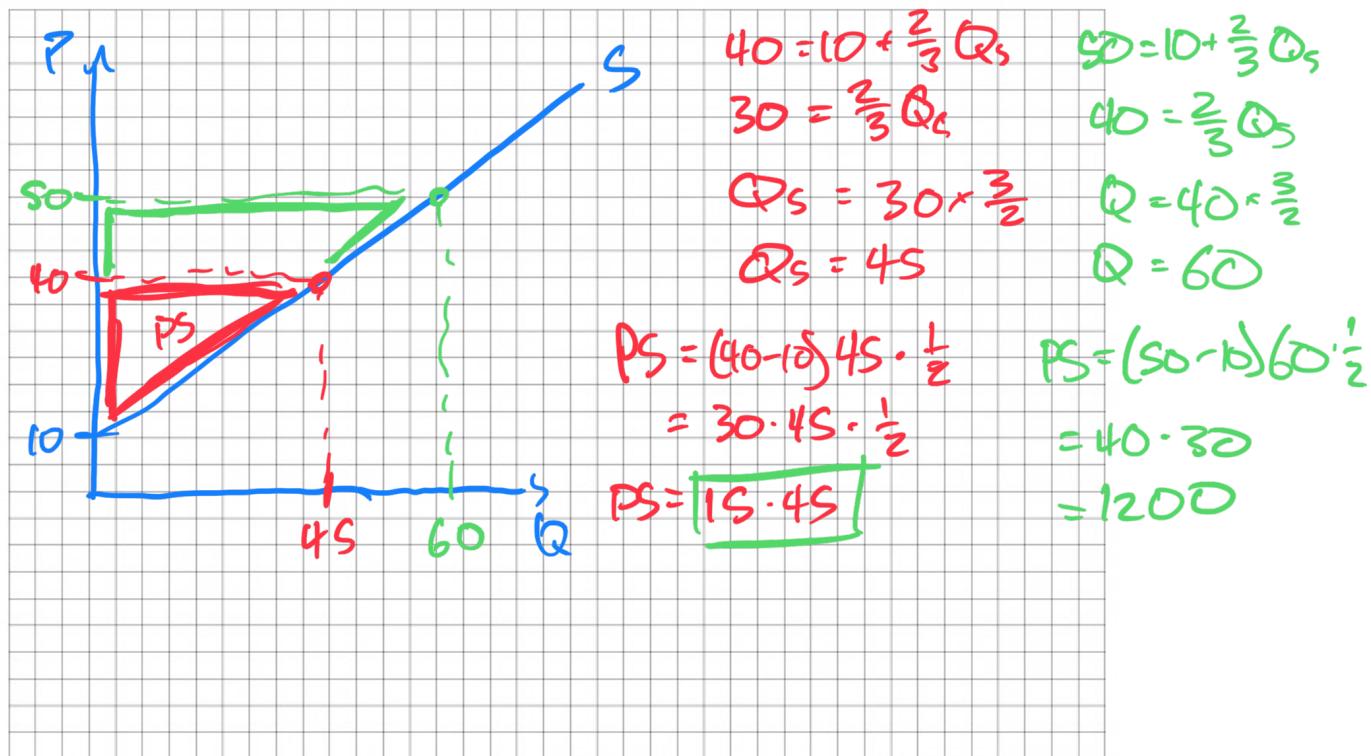
CS at 50 galleons: 2500

Question 2

The supply curve for butter beer can be represented by the following equation:

$$P_s = 10 + \frac{2}{3}Q_s$$

Use a graph to plot this supply curve, and find and label the producer surplus at both 40 galleons and 50 galleons.

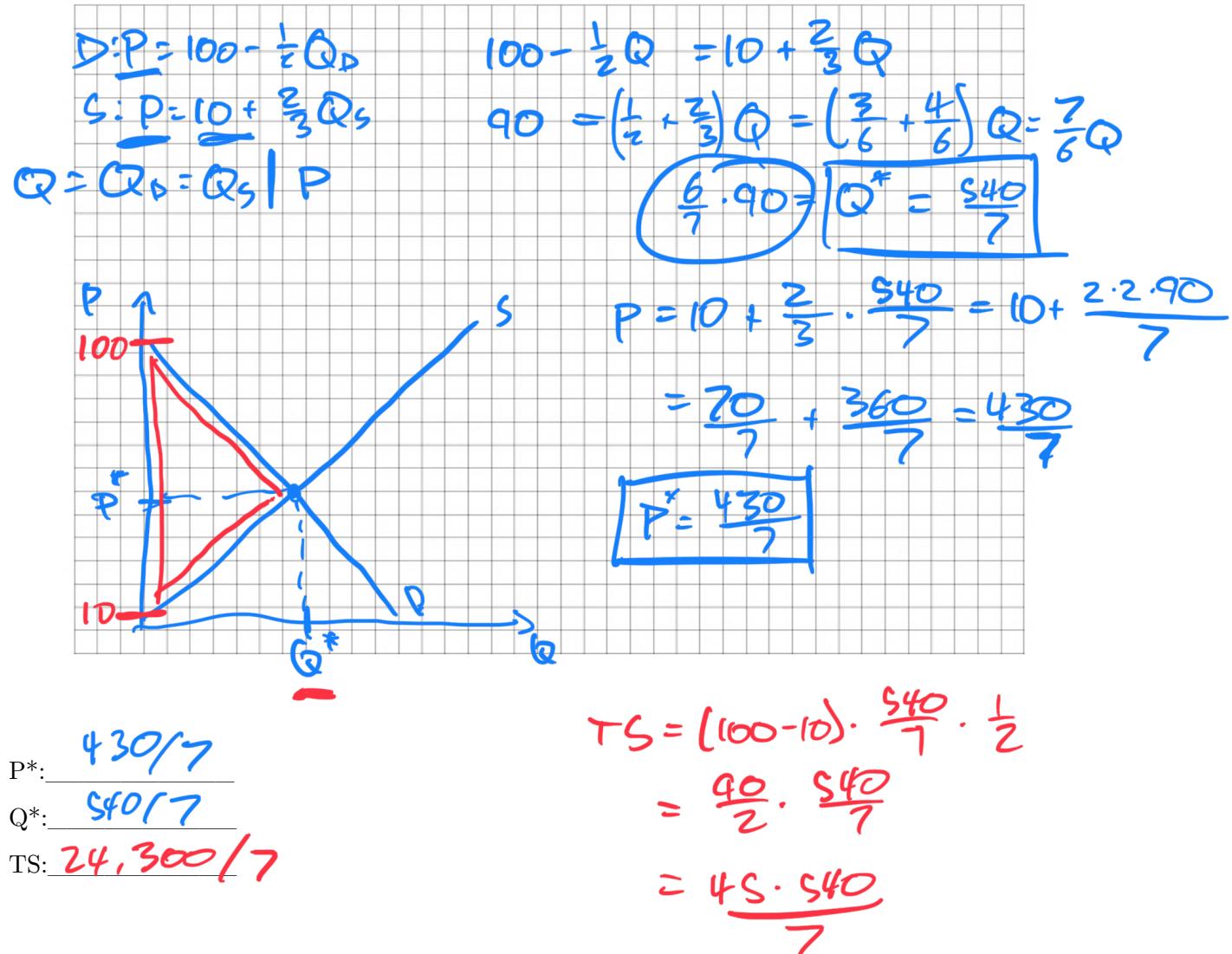


PS at 40 galleons: 675

PS at 50 galleons: 1200

Question 3

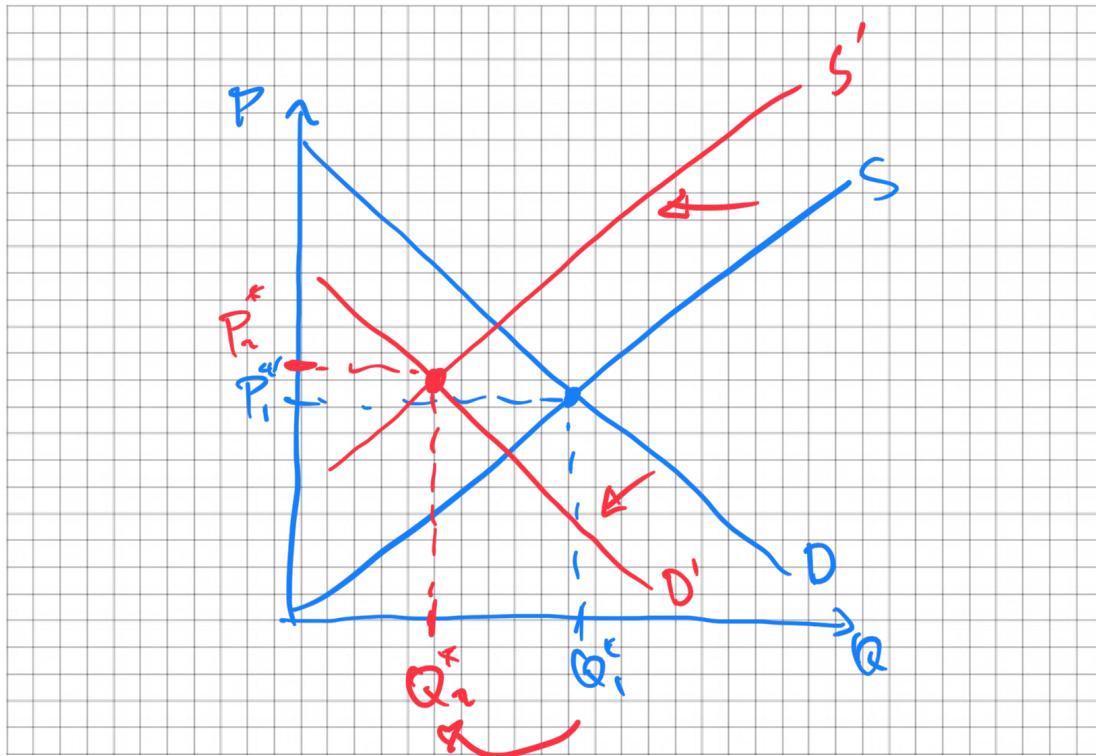
What is the market equilibrium price, quantity, and total surplus? Use a graph and algebra to analyze this market.



Question 4

Say something more about preferences

Butter beer has culturally been associated with a good time. This all changed when a high profile wizard went viral slamming the taste. At the same time an ingredient of the drink, butter extract, became incredibly difficult for butter beer makers to acquire. Use a graph to discuss the effect these two events had on the butter beer market.



Demand: UP, CONSTANT, DOWN

Supply: UP, CONSTANT, DOWN

Prices: UP, CONSTANT, DOWN, INDETERMINANT

Quantity: UP, CONSTANT, DOWN, INDETERMINANT