

# ECON 0100 | Fall 2024

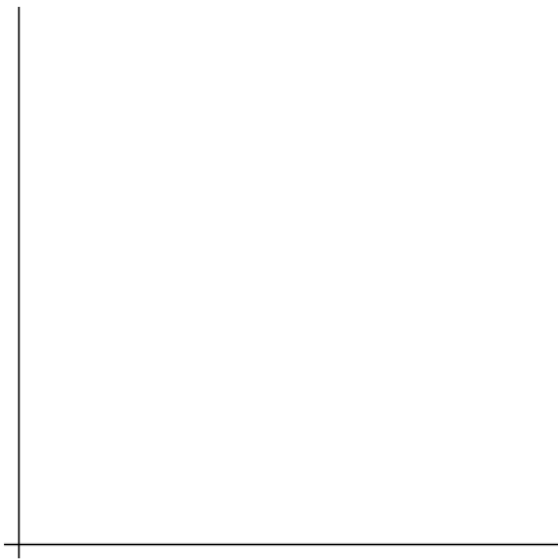
## *Vignette B2*

Pumpkin pasties are produced by many sellers according to the following supply curve:

$$P = 2 + \frac{2}{3}Q_s \quad (1)$$

Prices are in galleons and quantity is in thousands of pasties. Use the graphs below to guide your answers.

**Q1. Find and plot the quantity supplied at a price of 10 galleons.**



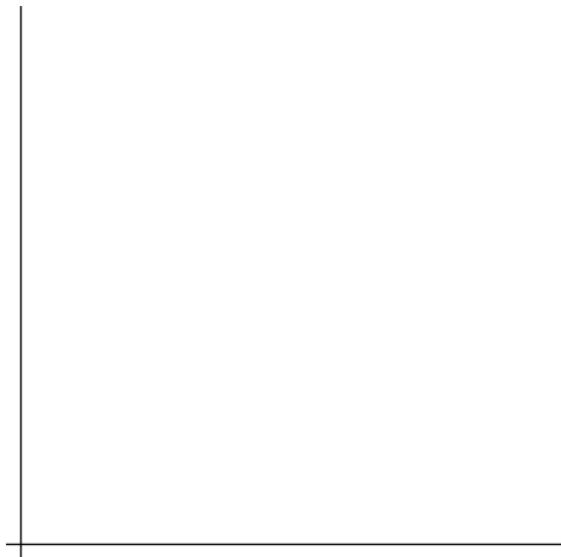
**Q2. Plot and find the area of producer surplus at a price of 10 galleons.**

**Q3. Recent drier growing seasons has made growing pumpkins more difficult, with a new supply curve that can be represented by the following. At a price of 10 galleons, how has the quantity supplied and producer surplus changed with this change in climate?**

$$P = 4 + \frac{2}{3}Q_s \quad (2)$$

Q4. Using the supply curve from Q3 and the preferences for pumpkin pasties represented by the following demand curve, find and plot the equilibrium price and quantity for pumpkin pasties.

$$P = 19 - \frac{1}{6}Q_b \quad (3)$$



Q5. Find and plot the consumer and producer surplus in the market equilibrium you found in Q4.

Q6. A popular channel on the wizarding social network FlueTube has been promoting pumpkin pasties, leading to a increase in the popularity of the snack. Without using numbers, use the graph above to discuss how the market has been impacted.