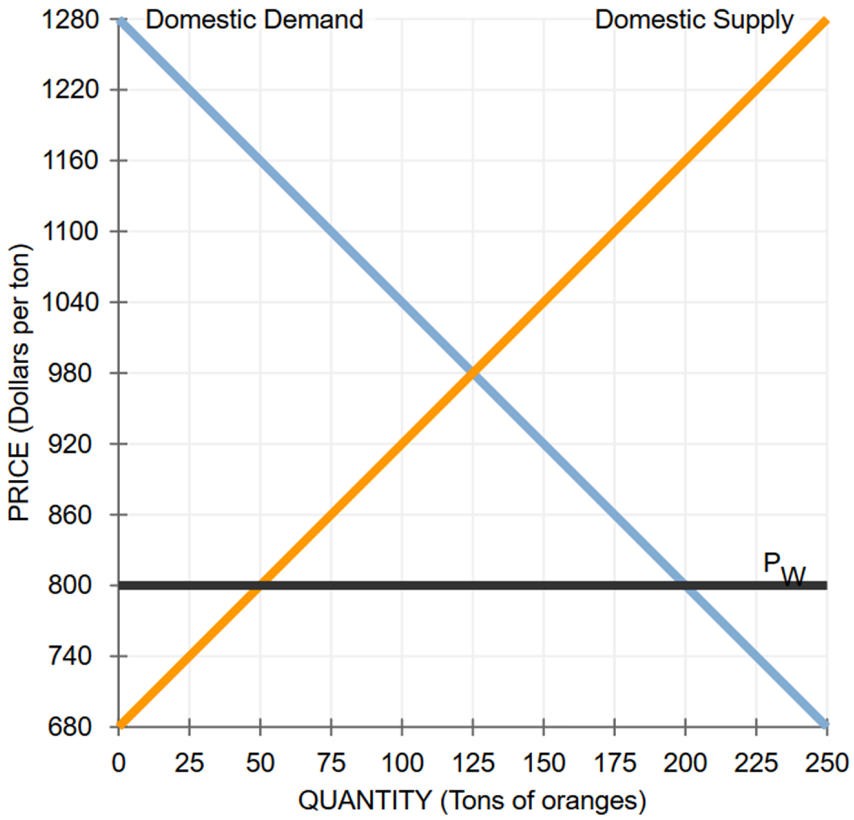
Problem 1

Part 1

Guatemala trades oranges. Demand for and supply of oranges in Guatemala do not affect the world price. The graph shows the oranges market in Guatemala. The world price is P_W = \$800 per ton. Shade consumer surplus and producer surplus when the economy is at free-trade equilibrium.



Part 2

(a) Under trade, Guatemala will import how many tons of oranges?

(b) If Guatemala imposes tariff of \$120 on each imported ton of oranges, what is the price consumers pay? And how many tons will Guatemala import?

(c) Graph the effects of the \$120 tariff.

Part 3

(a) Calculate the consumer surplus, producer surplus, and government revenue under free trade.

(b) Calculate the same things under the tariff.

(c) Does net welfare increase or decrease?

Problem 2

Part 1

This economy produces pens and oranges.

	Pens	
Year	Price (Dollars per pen)	Quantity (Number of pens)
2012	1	125
2013	2	170
2014	4	150

	Oranges	
Year	Price (Dollars per orange)	Quantity (Number of oranges)
2012	1	200
2013	4	230
2014	4	170

For each year, compute the **nominal GDP, real GDP, and GDP deflator.**

Part 2

From 2013 to 2014, did nominal GDP increase or decrease? What about real GDP?

What was the inflation rate in 2014?

Part 3

Why is real GDP a more accurate measure of an economy's production than nominal GDP? (Choose one.)

(a) Real GDP is not influenced by price changes, but nominal GDP is.

(b) Real GDP measures the value of the goods and services an economy produces, but nominal GDP measures the value of the goods and services an economy consumes.

(c) Real GDP does not include the value of intermediate goods and services, but nominal GDP does.

Problem 3

		2014		2015		2016	
	Quantity in Basket	Price (Dollars)	Cost (Dollars)	Price (Dollars)	Cost (Dollars)	Price (Dollars)	Cost (Dollars)
Notebooks	10	5	50	7		11	
Calculators	1	100	100	110		140	
Large coffees	150	1	150	1		1	
Energy drinks	50	2	100	3		4	
Textbooks	10	100	1,000	120		150	
Total cost			1,400				
Price index			100				

Part 1

The College Student Price Index (CSPI) is based on a typical college students annual purchases. Fill in the boxes above.

Part 2

(a) By how much did the CSPI increased by between 2014 and 2015?

(b) What about between 2015 and 2016?

Part 3

Why might this price index overstate inflation in the cost of going to college? (Choose one or more.)

(a) Energy drinks became increasingly popular on college campuses between 2014 and 2016 due to significant improvements in flavor, but this quality change is hard to measure.

(b) A new mobile device for personal computing became available for purchase.

(c) As the price of calculators rose, fewer students decided to buy them, opting instead to use the free calculators in their cell phones or on their computers.