

## Review Questions – A Competitive Market

1. Consider how each of the events (a)-(f) listed below would (separately) affect the market for apples in the U.S. this year.

i) Predict whether each event would (separately): Shift the apple **demand** curve **up**, or; shift the apple **demand** curve **down**, or; shift the apple **supply** curve **to the left**, or; shift the apple **supply** curve **to the right**.

(Note the word “or” in the above sentence; “or” does not mean “and.”)

ii) **Explain** the reasoning behind each of your predictions in one sentence each.

iii) Graph (a)-(f), labeling each old equilibrium and new equilibrium. (You should have six separate graphs of the apple market).

- a) The price of oranges rises.
- b) Crazy people place razor blades in apples in supermarkets.
- c) Bad weather destroys many apple orchards.
- d) Government gives apple sellers a tax rebate of 10 cents per apple sold.
- e) The incomes of apple buyers rise.
- f) Apple pickers demand and get higher wages.

2. Ace reporter Clark Kent discovered the following data on Metropolis' Tea Market:

<u>Price</u>	<u>Quantity Demanded</u>	<u>Quantity Supplied</u>
\$2	1000	200
\$4	800	600
\$6	700	700
\$8	300	900

- a) What is the equilibrium price and quantity of tea?
- b) Graph Metropolis' tea market, plotting at least 8 points on your graph.

3. The minimum wage has recently risen. (Note: there was an old minimum wage; now it's higher.)

a) Illustrate how an increase in the minimum wage will affect the quantity of lower-skilled workers employed, using a graph of the "lower-skilled workers" market. (Hint: the minimum wage is a 'price floor' on low-skilled wages).

b) Illustrate how an increase in the minimum wage will affect the equilibrium price and quantity of "**fast food meals**" using a graph of the "**fast food meals**" market.

## Answers

1. Consider how each of the events (a)-(f) listed below would (separately) affect the market for apples in the U.S. this year.

i) Predict whether each event would (separately): Shift the apple **demand** curve **up, or**; shift the apple **demand** curve **down, or**; shift the apple **supply** curve **to the left, or**; shift the apple **supply** curve **to the right**.

(Note the word “or” in the above sentence; “or” does not mean “and.”)

ii) **Explain** the reasoning behind each of your predictions in one sentence each.

iii) Graph (a)-(f), labeling each old equilibrium and new equilibrium. (You should have six separate graphs of the apple market).

a) The price of oranges rises.

*Since apples and oranges are substitutes, demand for apples rises, shifting the apple demand curve to the right, causing both the equilibrium price and quantity of apples to rise.*

b) Crazy people place razor blades in apples in supermarkets.

*Expectations of apple buyers are changed, causing them to reduce demand for apples; the apple demand curve shifts left, resulting in a lower price and quantity of apples.*

c) Bad weather destroys many apple orchards.

*This external event reduces apple supply, resulting in a leftward shift in the apple supply curve, causing the equilibrium price of apples to rise and the quantity to fall.*

d) Government gives apple sellers a tax rebate of 10 cents per apple sold.

*This government subsidy increases the supply of apples, illustrated by a rightward shift of the supply curve, resulting in an increased quantity of apples and a reduced price.*

e) The incomes of apple buyers rise.

*If we assume that apples are a normal good, then this increases demand for apples, illustrated by a rightward shift of the apple demand curve, causing an increase in equilibrium price and quantity.*

f) Apple pickers demand and get higher wages.

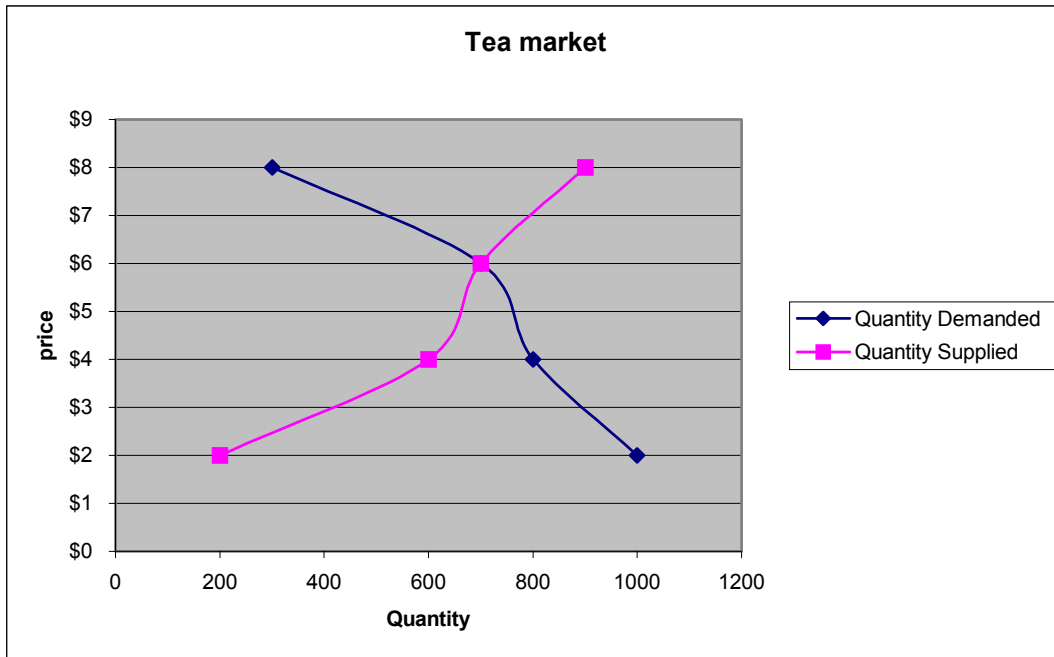
*This increases the cost of producing apples, resulting in a leftward shift of the apple supply curve, causing equilibrium price to rise and quantity to fall.*

2. Ace reporter Clark Kent discovered the following data on Metropolis' Tea Market:

Price	Quantity Demanded	Quantity Supplied				
\$2	1000	200				
\$4	800	600				
\$6	700	700				
\$8	300	900				

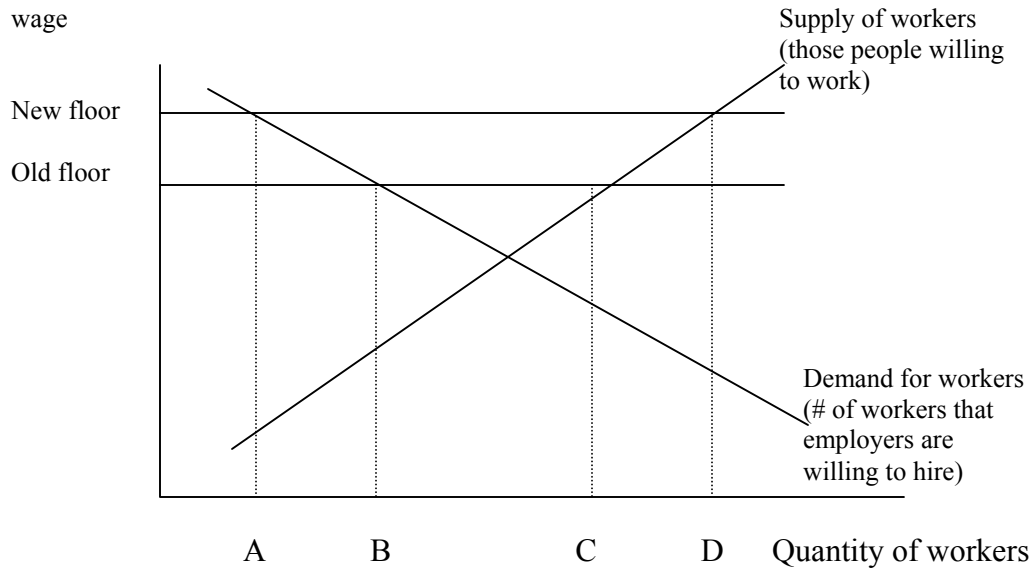
a) What is the equilibrium price and quantity of tea?  
*The equilibrium price is \$6 and quantity is 700*

b) Graph Metropolis' tea market, plotting at least 8 points on your graph.



3. The minimum wage has recently risen. (Note: there was an old minimum wage; now it's higher.)

a) Illustrate how an increase in the minimum wage will affect the quantity of lower-skilled workers employed, using a graph of the "lower-skilled workers" market. (Hint: the minimum wage is a 'price floor' on low-skilled wages).



*The number of workers hired falls from B to A. (Workers are measured along the horizontal axis.)*

*The surplus of workers (those who are unemployed—willing to work but not hired) under the old minimum wage equals the horizontal distance between B and C.*

*The surplus of workers (those who are unemployed—willing to work but not hired) under the new minimum wage equals the horizontal distance between A and D.*

b) Illustrate how an increase in the minimum wage will affect the equilibrium price and quantity of "**fast food meals**" using a graph of the "**fast food meals**" market.

