

APPLIED ECONOMICS

Analyzing Supply, Demand, and Market Equilibrium

Detailed practice, calculation, decision-making, and assessment

GRADES 9-12	TIME 2 x 42 min	GROUPING I / pairs / whole	PRODUCT Brief
YOUR CHALLENGE Use schedules to identify equilibrium, calculate shortages and surpluses, analyze shifts, and recommend a cautious pricing and inventory rule.			

Economic Choices Require Evidence About Trade-Offs, Prices, and Purchasing Power

Demand describes quantities buyers are willing and able to purchase at different prices. Supply describes quantities sellers are willing and able to offer. Their interaction helps determine equilibrium, while changing conditions can shift the schedules.

Term	Student-friendly meaning
Quantity demanded	Amount buyers are willing and able to buy at a price during a period.
Quantity supplied	Amount sellers are willing and able to offer at a price during a period.
Equilibrium	Price and quantity where quantity demanded equals quantity supplied.
Shortage	Quantity demanded exceeds quantity supplied.
Surplus	Quantity supplied exceeds quantity demanded.
Shift	Change in a schedule caused by a factor other than the item's own price.
CLASSROOM USE All people, employers, figures, brackets, and documents in this packet are fictional. Never place a real Social Security number, employer ID, bank number, or tax document in classroom work.	

Part 1 - Find Market Equilibrium

Use the fictional weekly market for reusable water bottles.

Price	Quantity demanded	Quantity supplied	Shortage/surplus
\$10	140	50	
\$14	120	80	
\$18	100	100	
\$22	75	125	
\$26	55	150	

Calculate demanded minus supplied and identify equilibrium price and quantity.

Part 2 - Analyze a Demand Shift

A school bans single-use bottles. New quantity demanded is 40 units higher at each price; supply is unchanged.

Price	New Qd	Qs	Shortage/surplus
\$10		50	
\$14		80	
\$18		100	
\$22		125	
\$26		150	

Find the new closest equilibrium in the table and explain the predicted direction of price and quantity.

Part 3 - Analyze a Supply Shift

Instead, material costs rise. Quantity supplied falls by 30 at each price; original demand is unchanged.

Price	Qd	New Qs	Shortage/surplus
\$10	140		
\$14	120		
\$18	100		
\$22	75		
\$26	55		

Find the new closest equilibrium and explain the predicted direction.

Part 4 - Interpret Shortages, Surpluses, and Incentives

Evaluate possible responses without assuming every seller or buyer reacts the same way.

Situation	Likely pressure	Buyer incentive	Seller incentive	Limitation
Shortage at \$14				
Surplus at \$22				
Demand increase				
Supply decrease				

Explain how price can signal scarcity while other adjustments also occur.

Part 5 - Write a Market Analysis

Advise a school store choosing an initial price and reorder rule.

Decision check	My evidence
Original equilibrium	
Demand-shift evidence	
Supply-shift evidence	
Shortage signal	
Surplus signal	
Non-price response	
Missing real-world facts	
Qualified recommendation	

Write 150-200 words using at least five figures and two limitations.