

INTERNATIONAL ECONOMICS

Using Comparative Advantage to Explain Trade

Detailed practice, calculation, decision-making, and assessment

GRADES 9-12	TIME 2 x 42 min	GROUPING I / pairs / whole	PRODUCT Brief
YOUR CHALLENGE Calculate opportunity costs, distinguish absolute and comparative advantage, evaluate specialization, and identify beneficial trade terms.			

International Choices Link Opportunity Cost, Currency Values, and Supply-Chain Risk

Comparative advantage depends on lower opportunity cost, not simply who can produce more. Specialization and voluntary trade can expand available choices, but real outcomes also depend on transportation, quality, adjustment costs, rules, bargaining, and distribution.

Term	Student-friendly meaning
Absolute advantage	Ability to produce more with the same resources.
Comparative advantage	Ability to produce at lower opportunity cost.
Specialization	Concentrating resources on selected production.
Opportunity cost	Output of the next-best alternative given up.
Terms of trade	Rate at which goods or services exchange.
Export	Good or service produced domestically and sold abroad.
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 - Compare Production Possibilities

In one workday, North can make 12 bikes or 36 helmets. South can make 8 bikes or 32 helmets.

Producer	Maximum bikes	Maximum helmets	Helmets per bike given up	Bikes per helmet given up
North	12	36		
South	8	32		

Calculate opportunity costs. Do not identify comparative advantage from maximum output alone.

Part 2 - Identify Absolute and Comparative Advantage

Use the production data and opportunity costs.

Good	Absolute advantage	Comparative advantage	Evidence
Bikes			
Helmets			

Explain how one producer can have absolute advantage in both goods but not comparative advantage in both.

Part 3 - Calculate Gains from Specialization

Before specialization, North splits time and makes 6 bikes and 18 helmets; South makes 4 bikes and 16 helmets.

Measure	Before specialization	After specialization	Change
Total bikes			
Total helmets			

Assume North specializes in bikes and South in helmets. Calculate total output before trade.

Part 4 - Find Mutually Beneficial Trade Terms

North’s cost of one bike is 3 helmets. South’s cost is 4 helmets.

Proposed trade	North compared with own cost	South compared with own cost	Benefits both?
1 bike for 2 helmets			
1 bike for 3 helmets			
1 bike for 3.5 helmets			
1 bike for 4 helmets			
1 bike for 5 helmets			

A mutually beneficial rate must fall strictly between the opportunity costs unless one side is indifferent.

Part 5 - Write a Trade Recommendation

Recommend specialization and a possible trade while recognizing real-world limits.

Decision check	My evidence
Opportunity cost North	
Opportunity cost South	
Absolute advantage	
Comparative advantage	
Pre-specialization output	
Specialized output	
Trade range	
Qualified recommendation	

Write 150-200 words using at least six figures and three limitations.