Trade After the Storm

Use production costs to test whether trade benefits both partners.

SS24.E.11a "Contrast absolute advantage to comparative advantage, and explain how they are used to measure gains from trade."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline each advantage term, circle the production rates and trade amounts, and label the initial and new production plans 1 and 2.

Panels, Filters, and a Trade

1 After a hurricane, two coastal countries can make portable solar panels and water filters. Each has two identical workdays of labor available. The table shows what one workday can produce if devoted entirely to one product. Workers can split time between products, and output changes in proportion to time spent. All units have equal quality.

OUTPUT FROM ONE WORKDAY

Country	Solar panels	Water filters
Coastland	6	6
Highland	4	2

2 An absolute advantage means producing more with the same resources. A comparative advantage means giving up less of another good to produce one good. That sacrifice is its opportunity cost. Divide output lost by output gained to find the cost. Specialization by comparative advantage can expand what trading partners consume, even when one partner is more productive in both goods.

3 At first, each country spends one day on each product. Under a new plan, Coastland spends half a day on panels and one and a half days on filters; Highland spends both days on panels. Coastland then trades three filters to Highland for four panels. Can both consume more than before?

2 ANSWER WITH EVIDENCE

Use the passage

1. Which country has an absolute advantage in each product? Use the daily output rates to explain.

2. What is the opportunity cost of one panel in each country? Which country has the comparative advantage in panels?

3. What is the opportunity cost of one filter in each country? Which country has the comparative advantage in filters?

4. Find each country's panels and filters before the new plan and after the trade. What does each country gain?

3 YOUR TURN

Your own words

Invent daily production rates for mugs and scarves in two towns with two workdays each. Show absolute and comparative advantages using opportunity costs, then give an initial plan, a new production plan, and a trade that lets both towns consume more of at least one good without consuming less of the other.

ANSWER KEY

Trade After the Storm

GRADE 12 · SS24.E.11a

PART 1 · READ AND MARK

Underline each advantage term, circle the production rates and trade amounts, and label the initial and new production plans 1 and 2. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Which country has an absolute advantage in each product? Use the daily output rates to explain.	**Coastland has an absolute advantage in both products. In one day, it can make 6 panels instead of 4, or 6 filters instead of 2.**
2	What is the opportunity cost of one panel in each country? Which country has the comparative advantage in panels?	**One panel costs Coastland 1 filter and Highland 0.5 filter. Highland has the comparative advantage in panels.**
3	What is the opportunity cost of one filter in each country? Which country has the comparative advantage in filters?	**One filter costs Coastland 1 panel and Highland 2 panels. Coastland has the comparative advantage in filters.**
4	Find each country's panels and filters before the new plan and after the trade. What does each country gain?	**Coastland goes from 6 panels and 6 filters to 7 panels and 6 filters, gaining 1 panel. Highland goes from 4 panels and 2 filters to 4 panels and 3 filters, gaining 1 filter.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Town A makes 8 mugs or 8 scarves per day; Town B makes 6 mugs or 3 scarves. A has the absolute advantage in both. One mug costs A 1 scarf and B 0.5 scarf; one scarf costs A 1 mug and B 2 mugs. Thus A has the comparative advantage in scarves, while B has it in mugs. Initially, each spends one day on each good: A has 8 mugs and 8 scarves; B has 6 mugs and 3 scarves. Next A makes 4 mugs and 12 scarves, and B makes 12 mugs. A trades 3 scarves for 5 mugs. A ends with 9 mugs and 9 scarves; B ends with 7 mugs and 3 scarves. Both gain mugs.

Accept equivalent fractions or decimals for opportunity costs. For Your Turn, check that the invented rates support both comparative-advantage claims and that the stated trade leaves neither town with less of either good than it had initially.