The Trade-Off

Use output and opportunity cost to explain gains from trade.

SS24.E.11 "Explain why individuals, businesses, and nations engage in trading goods and services in the global economy. 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 Circle the output numbers in the table, underline each opportunity-cost comparison in the passage, and put a star beside the proposed exchange. Use your marks to trace why specialization can benefit both countries.

Oil, Tiles, and Trade

1 Suppose a worker in Spain and a worker in Morocco can each make olive oil or ceramic tiles in one day. The table shows possible daily output if each worker spends the whole day on one good. These are invented figures, not reports of actual national production. Both countries could trade instead of making every product themselves.

POSSIBLE OUTPUT PER WORKER IN ONE DAY

Country	Olive oil (liters)	Ceramic tiles (square meters)
Spain	12	12
Morocco	6	9

2 Spain can produce more of either good per worker, so it has an absolute advantage in both. But producing one liter of oil costs Spain one square meter of tiles, while it costs Morocco one and a half square meters. That lower opportunity cost gives Spain a comparative advantage in oil, even though it already leads in output.

3 Morocco has a comparative advantage in tiles: each square meter costs it two thirds of a liter of oil, versus one liter in Spain. Spain could trade four liters of oil for five square meters of tiles, leaving both better off than producing those amounts alone. A tariff could protect local tile makers but raise buyers' costs.

2 ANSWER WITH EVIDENCE

Use the passage

1. Which country has an absolute advantage in both goods? How is that different from its comparative advantage?

2. Why does Morocco have a comparative advantage in tiles even though its worker makes fewer tiles per day?

3. For the proposed exchange, calculate how much each country gains compared with making the imported good itself.

4. Why might a country impose the tariff described in the passage, and why might buyers prefer trade without it?

3 YOUR TURN

Your own words

Invent daily output for one worker in each of two places making either of two goods. Identify any absolute advantages, calculate each place's opportunity cost of one good, then propose specialization and an exchange that benefits both places.

ANSWER KEY

The Trade-Off

GRADE 12 · SS24.E.11

PART 1 · READ AND MARK

Circle the output numbers in the table, underline each opportunity-cost comparison in the passage, and put a star beside the proposed exchange. Use your marks to trace why specialization can benefit both countries. 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 both goods? How is that different from its comparative advantage?	**Spain has an absolute advantage in both because its worker can produce more of each. Spain has a comparative advantage only in oil because its opportunity cost of oil is lower.**
2	Why does Morocco have a comparative advantage in tiles even though its worker makes fewer tiles per day?	**A square meter of tiles costs Morocco two thirds of a liter of oil, but costs Spain one liter. Morocco gives up less oil to make tiles.**
3	For the proposed exchange, calculate how much each country gains compared with making the imported good itself.	**Four liters of oil cost Spain four square meters of tiles, but Spain receives five, a gain of one square meter. Five square meters of tiles cost Morocco 3⅓ liters of oil, but Morocco receives four, a gain of ⅔ liter.**
4	Why might a country impose the tariff described in the passage, and why might buyers prefer trade without it?	**The tariff could protect local tile makers from import competition. Buyers might prefer trade without it because the tariff can raise the price of imported tiles.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

In Harbor, a worker makes 8 baskets or 16 scarves per day. In Ridge, a worker makes 6 baskets or 18 scarves. Harbor has an absolute advantage in baskets, while Ridge has one in scarves. One basket costs Harbor 2 scarves and Ridge 3 scarves, so Harbor has a comparative advantage in baskets and Ridge in scarves. Harbor could specialize in baskets and trade 2 baskets for 5 scarves. Harbor receives 5 scarves instead of the 4 it gives up; Ridge pays 5 scarves instead of the 6 it would give up to make 2 baskets.

Accept other invented outputs and exchanges when the opportunity costs, identified advantages, and gains are mathematically consistent. For question 3, equivalent fractions or decimals are acceptable.