
AP[®] Human Geography

Sample Student Responses and Scoring Commentary Set 2

Inside:

Free-Response Question 2

- ☒ **Scoring Guidelines**
- ☒ **Student Samples**
- ☒ **Scoring Commentary**

Question 2: One Stimulus**7 points**

A (Point 1)	<p>Using the data in the charts, identify the largest food export category between the two countries.</p> <p>Acceptable identification:</p> <ul style="list-style-type: none"> • A1. Grains, fruits, vegetables. 	1 point
B (Point 2)	<p>Using the data in the charts, describe the difference between the two countries in the meat, dairy, and seafood category.</p> <p>Examples of acceptable responses may include the following:</p> <ul style="list-style-type: none"> • B1. The amount of exports or trade from Country X is larger. • B2. The amount of exports or trade from Country Y is smaller. • B3. Exports or trade from Country X is \$5.1 billion, while exports or trade from Country Y is \$2.3 billion. • B4. The amount of exports or trade from Country X is approximately twice as much as exports or trade from Country Y. 	1 point
C (Point 3)	<p>Define the concept of comparative advantage.</p> <p>Examples of acceptable responses may include the following:</p> <ul style="list-style-type: none"> • C1. Comparative advantage describes a situation in which an individual, business, or country can produce a good or service more efficiently and/or at a lower opportunity cost than another producer. • C2. Comparative advantage occurs when countries choose to specialize in producing goods or services that they can produce more efficiently, effectively, and/or that have a lower opportunity cost. 	1 point
D (Point 4)	<p>Describe one effect of Green Revolution technologies on food supplies in developing countries.</p> <p>Examples of acceptable responses may include the following:</p> <ul style="list-style-type: none"> • D1. Green Revolution technologies (e.g., high-yield seeds, increased use of chemicals, mechanized farming) increased food supplies. • D2. Green Revolution technologies increased the amount of farm production and/or the agricultural yield of food crops and/or animals. • D3. Pesticide use led to pesticide resistance in some species, decreasing food production. • D4. Irrigation and/or the use of mechanized equipment led to soil erosion and/or loss of soil fertility, decreasing food production. • D5. Monocropping, mechanization, and/or the decrease in smaller farms changed the types of food produced and/or affected food supplies. 	1 point

E (Point 5)	Explain how advances in agricultural technology may increase the carrying capacity of land.	1 point
-----------------------	--	----------------

Examples of acceptable responses may include the following:

- E1. Advances in agricultural chemicals (e.g., fertilizers, pesticides) may allow an area of land to produce more resources and support a larger population.
 - E2. Carrying capacity may increase through mechanization (e.g., tractors, vehicles, irrigation, processing equipment), which may allow an area of land to produce more resources and support a larger population.
 - E3. Carrying capacity may increase through the use of high-yield seeds, which may allow an area of land to produce more resources and support a larger population.
 - E4. Carrying capacity may increase if agricultural technology is used to bring areas with low population density into agricultural production leading to higher population density.
 - E5. Carrying capacity may increase through the use of agricultural technology (e.g., precision agriculture, GPS) that improves growing conditions or optimizes agricultural practices, leading to the production of more food and the ability to support a larger population.
-

F (Point 6)	Explain the degree to which the economies of Country X and Country Y are interdependent. (Response must indicate the degree [low, moderate, high] and provide an explanation.) Examples of acceptable responses may include the following: Statement of a moderate or high degree AND <ul style="list-style-type: none">F1. Country X and Country Y are highly interdependent due to the billions of dollars of agricultural trade occurring between the two.F2. Both countries are dependent upon one or more export commodities traded with each other (exports, imports) and/or agriculture is used as an economic strategy for both countries.F3. Trade in agricultural goods between Country X and Country Y is part of the global supply chain and/or part of the global food distribution network that links producers and consumers. OR Statement of a moderate or low degree AND <ul style="list-style-type: none">F4. The amount of trade between the two countries for agriculture may be small in comparison to the trade in other sectors (e.g., manufacturing, services).F5. The agricultural trade data in the charts do not provide enough information to demonstrate interdependence because agriculture is only a portion of the total amount of trade (of all goods and services).	1 point
G (Point 7)	Explain how the charts provide limited information about economic development. Examples of acceptable responses may include the following: <ul style="list-style-type: none">G1. The charts provide data for only one sector of the economy and/or do not include other measures of social and/or economic development (e.g., GDP, GNP, GNI per capita, sectoral structure, population data).G2. Export data indicate the production of goods for international trade but not the production of goods for the domestic economy.G3. Export data do not include non-food products (e.g., cotton) which contribute to economic development.G4. The charts do not have a temporal or spatial dimension (e.g., a year, timeframe, variation by different areas) which is essential for understanding trends or making comparisons (e.g., uneven development).G5. The charts show that Country Y has higher agricultural exports than Country X, but the charts do not show that Country X has a more developed economy.	1 point

A. The largest food export category between the two countries is grains, fruits, and vegetables. It accounts for \$8.2 billion of Country X's exports to Country Y, and \$13.7 billion of Country Y's exports to Country X.

B. Country X is exporting much more meat, dairy, and seafood to Country Y than vice versa, and it accounts for a higher percentage of their exports as well. Meat, dairy, and seafood accounts of \$5.1 billion of Country X's \$19.1 billion exports to Country Y (over a fourth), while it accounts for \$2.3 billion out of Country Y's \$28 billion exports to Country X (less than an eighth).

C. Comparative advantage is the concept of each country being able to specialize in producing some goods and services, and then trading with other countries to get the other goods and services it needs. This is the main reason countries participate in the global economy-- they can specialize and produce a few specific goods and services more efficiently and at a lower cost, and if every country does this and trades with each other to get what they need, it results in a more productive and cost-effective global economy. This approach is highly preferable to countries isolating themselves from global trade and trying to produce everything they need on their own, because that's far less efficient and far more expensive for them than utilizing their comparative advantage and participating in the global economy.

D. Green Revolution technologies increased food supplies in developing countries by providing them with chemical fertilizers, pesticides, and herbicides. Use of these technologies increased agricultural efficiency and yields, which increased food production in many developing countries, such as those in North Africa. This revolution was invaluable to increasing food supplies, but it also had some negative effects such as the negative environmental effects of chemical fertilizers and pesticides.

E. Advances in agricultural technology may increase the carrying capacity of land because they lead to an increased food surplus, increasing the amount of people that the land is able to support, or its carrying capacity. Advancements in agricultural technology in the Second Agricultural Revolution and the Green Revolution have greatly increased the land's carrying capacity by making food production mechanized and therefore more efficient, proving Malthus wrong by providing an increased food supply for the growing population all around the world. Malthus predicted that the population would grow at an exponential rate while food production grew arithmetically, eventually leading to a catastrophe where the land's carrying capacity was overwhelmed and there wouldn't be enough food to support all the people living on it. However, society's advancements in agricultural technology have proven that such advancements do in fact increase the carrying capacity exponentially by providing more food to people globally, increasing the amount of people that can survive with the resources here on Earth.

F. Country X and Country Y's economies are interdependent to a moderate degree because Wallerstein's World System Theory states that all countries are interdependent, and core countries take advantage of semi-periphery and periphery countries by exploiting them for their natural resources. As Country X is a developed country, it's in the core, and being a developing country means that Country Y is in the periphery or semi-periphery. This can be seen by how half of Country Y's exports to Country X are raw agricultural commodities produced from primary sector jobs.

G. The charts provide limited information about economic development because they only show exports from each country to one other country, rather than factoring in a measure such as the country's GDP or showing the country's total exports. When looking at this data, lots of information about the countries' economic development is left out-- they could be exporting a ton of products to some other country not seen on this graph, or making a lot of products and keeping them within their own country for use. However, with only the current data and not an additional factor such as their GDP or total exports, it's difficult to really gauge the development level of these countries' economies.

A. Using the data in the charts, the largest food export category between the two countries is Grains, fruits, and vegetables. By looking at the charts and keys, there is a clear dominance of this category over the others with processed foods being the next largest.

B. Using the data in the charts, the difference between the two countries in the meat, dairy, and seafood category comes down to a larger amount of exports of the product from Country X to Country Y. Seeing as Country X is a developed country, it makes sense that they would have more of these items to export to a developing country such as Country Y. Country Y being developing has less access to these goods and relies more on farm food rather than what's produced from an animal. A good comparison would be American (Country X) and Africa (Country Y).

C. Comparative advantage is the natural advantage that one country may have over the others because of their location, resources, and size. An example could be a country with large oil reserves like Europe, or a country with good, fertile soil.

D. One effect of Green Revolution technologies on food supplies in developing countries is an increase in the yield of crops through the use of high-yield seeds. The Green Revolution brought forth modified seeds, which provide a larger yield of crops when compared to unmodified ones. The utilization of these in developing countries leads to an increase in the yield and a larger food production.

E. Advances in agricultural technology may increase the carrying capacity of land through the use of high yield seeds. High yield seeds improve the amount of produce the seed can yield, which increases the capacity of which the land can carry these seeds. It's often a challenge trying to get the most out of the land but with these seeds, production is increased. We can see this in areas of Africa using these seeds.

F. The degree to which the economies of Country X and Country Y are interdependent is moderate. This moderate interdependence comes from the larger amount of fats, vegetable oils, meat, dairy and seafood which is exported from Country X to Country Y, as well as the larger amount of processed foods and grains, fruits and vegetables from Country Y to Country X. We can see by these charts that both countries have categories which they have less than the other in, so the other country provides them with more of that product. This interdependence has a moderate effect since Country X is still developed when compared to Country Y which is developing.

G. The charts provide limited information about economic development because they don't include exports of manufactured goods and other products that aren't foods. Food is only one of many different channels of economic exchange and something like manufactured goods plays a large role in the development of a country. There are several different inputs that go into a country's economy. A country such as China has a large amount of exports that are manufactured goods which are exported to America and other countries and is accounted for in their total economic growth.

- A) Using the data in the charts I was able to identify the targets food export category between the two countries which is country Y.
- B) The difference between the two countries in the meat, dairy, and seafood category is that country X exports a larger amount of meat, dairy, and seafood than country Y, and country Y exports not as much as country X due to it being a developing country and country X being a fully developed and stabilized country.
- C) The concept of comparative advantage is when two country's compare themselves to each other and any advantages that are there are comparative.
- D) One effect of Green Revolution technologies had on food supplies in developing countries is that it made the food production rate higher and more stabilized than it was before.
- E) Advances in agricultural technology may increase the carrying capacity of land due to the sudden advances in technology. For example, there is better ways to have greener lands because irrigation exists which can water larger areas of land more than a couple humans can.
- F) The degree to which economies of country X and country Y are interdependent is moderate. It is moderate because the degree isn't that high neither very low.
- G) The charts provide limited information about economic development because it doesn't exactly show much clear information like most others would.

Question 2

Note: Student samples are quoted verbatim and may contain spelling and grammatical errors.

Overview

NEW for 2025: The question overviews can be found in the *Chief Reader Report on Student Responses* on [AP Central](#).

Sample: 2A

HG Point 1 Score: 1

HG Point 2 Score: 1

HG Point 3 Score: 1

HG Point 4 Score: 1

HG Point 5 Score: 1

HG Point 6 Score: 1

HG Point 7 Score: 1

Score: 7

The response to part A earned 1 point. The response correctly identifies the largest food export category between the two countries by stating, “grains, fruits, and vegetables.”

The response to part B earned 1 point. The response correctly describes the difference between the two countries in the meat, dairy, and seafood category by stating that, “Country X is exporting much more meat, dairy, and seafood to Country Y than vice versa.”

The response to part C earned 1 point. The response correctly defines the concept of comparative advantage by stating that, “they can specialize and produce a few specific goods and services more efficiently and at a lower cost, and if every country does this and trades with each other to get what they need, it results in a more productive and cost-effective global economy.”

The response to part D earned 1 point. The response correctly describes one effect of Green Revolution technologies on food supplies in developing countries by stating that, “Green Revolution technologies increased food supplies in developing countries by providing them with chemical fertilizers, pesticides, and herbicides.”

The response to part E earned 1 point. The response correctly explains how advances in agricultural technology may increase the carrying capacity of land by stating that, “Advances in agricultural technology may ... lead to an increased food surplus, increasing the amount of people that the land is able to support, or its carrying capacity. Advancements in agricultural technology in the Second Agricultural Revolution and the Green Revolution have greatly increased the land’s carrying capacity by making food production mechanized and therefore more efficient.”

The response to part F earned 1 point. The response correctly explains the degree to which the economies of Country X and Country Y are interdependent by stating that, “because Wallerstein’s World System Theory states that all countries are interdependent, and core countries take advantage of semi-periphery and periphery countries by exploiting them for their natural resources,” suggesting that countries use exploitation as an economic advantage.

Question 2 (continued)

The response to part G earned 1 point. The response correctly explains how the charts provide limited information about economic development by stating that, “they only show exports from each country to one other country, rather than factoring in a measure such as the country’s GDP or showing the country’s total exports.”

Question 2 (continued)**Sample: 2B****HG Point 1 Score: 1****HG Point 2 Score: 1****HG Point 3 Score: 0****HG Point 4 Score: 1****HG Point 5 Score: 0****HG Point 6 Score: 1****HG Point 7 Score: 1****Score: 5**

The response to part A earned 1 point. The response correctly identifies the largest food export category between the two countries by stating, “Grains, fruits, and vegetables.”

The response to part B earned 1 point. The response correctly describes the difference between the two countries in the meat, dairy, and seafood category by stating that, “the difference ... comes down to a larger amount of exports of the product from Country X to Country Y.”

The response to part C did not earn a point. The response incorrectly defines the concept of comparative advantage by stating that, “the natural advantage that one country may have over the others because of their location, resources, and size ... like Europe.” The response would have earned the point if it had stated that comparative advantage describes a situation in which an individual, business, or country can produce a good or service more efficiently and/or at a lower opportunity cost than another producer within their own country.

The response to part D earned 1 point. The response correctly describes one effect of Green Revolution technologies on food supplies in developing countries by stating that, “One effect ... is an increase in the yield of crops through the use of high-yield seeds.”

The response to part E did not earn a point. The response incorrectly explains how advances in agricultural technology may increase the carrying capacity of land by stating the use of high yield seeds. “High yield seeds improve the amount of produce the seed can yield, which increases the capacity of which the land can carry these seeds.” The response would have earned the point if it had stated that carrying capacity may increase through the use of high-yield seeds, which may allow an area of land to produce more resources and support a larger population.

The response to part F earned 1 point. The response correctly explains the degree to which the economies of Country X and Country Y are interdependent by stating that, “This moderate interdependence comes from the larger amount of fats, vegetable oils, meat, dairy and seafood which is exported from Country X to Country Y, as well as the larger amount of processed foods and grains, fruits and vegetables from Country Y to Country X.”

The response to part G earned 1 point. The response correctly explains how the charts provide limited information about economic development by stating that, “Food is only one of many different channels of economic exchange and something like manufactured goods plays a large role in the development of a country.”

Question 2 (continued)**Sample: 2C****HG Point 1 Score: 0****HG Point 2 Score: 1****HG Point 3 Score: 0****HG Point 4 Score: 1****HG Point 5 Score: 0****HG Point 6 Score: 0****HG Point 7 Score: 0****Score: 2**

The response to part A did not earn a point. The response incorrectly identifies the largest food export category between the two countries by stating, “the targets food export category between the two countries which is country Y.” The response would have earned the point if it had identified grains, fruits, and vegetables.

The response to part B earned 1 point. The response correctly describes the difference between the two countries in the meat, dairy, and seafood category by stating that, “country X exports a larger amount of meat, dairy, and seafood than country Y.”

The response to part C did not earn a point. The response incorrectly defines the concept of comparative advantage by stating that, “when two country’s compare themselves to each other.” The response would have earned the point if it had stated that comparative advantage describes a situation in which an individual, business, or country can produce a good or service more efficiently and/or at a lower opportunity cost than another producer within its own country.

The response to part D earned 1 point. The response correctly describes one effect of Green Revolution technologies on food supplies in developing countries by stating that, “it made the food production rate higher and more stabalized than it was before.”

The response to part E did not earn a point. The response incorrectly explains how advances in agricultural technology may increase the carrying capacity of land by stating that, “there is bettwer ways to have greenier lands because irrigation exists which can water larger areas of land more than a couple humans can.” The response would have earned the point if it had stated that advances in irrigation may allow an area of land to produce more resources to support a larger population.

The response to part F did not earn a point. The response incorrectly explains the degree to which the economies of Country X and Country Y are interdependent by stating that, “It is moderate because the degree isn’t that high neither very low” without providing an explanation. The response would have earned the point if it had stated that Country X and Country Y are highly interdependent due to the billions of dollars of agricultural trade occurring between the two.

The response to part G did not earn a point. The response incorrectly explains how the charts provide limited information about economic development by stating that, “because it doesn’t exactly show much clear information like most others would,” without providing a clear example. The response would have earned the point if it had stated that the charts provide data for only one sector of the economy and/or do not include other measures of social and/or economic development.