

AP Human Geography

Sample Student Responses and Scoring Commentary Set 1

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Free-Response Question 2

- ☑ Scoring Guidelines
- **☑** Scoring Commentary

Question 2: One Stimulus

7 points

Α

Identify the recent trend in fertility shown in the population pyramid.

1 point

(Point 1)

Examples of acceptable responses may include the following:

- A1. Japan's fertility rate has declined.
- A2. Japan's birth rate has declined.
- A3. Fewer children are being born.
- A4. Japan likely has a negative RNI.
- A5. Japan has low, slow, zero, and/or negative population growth.

(Point 2)

Based on the data shown in the population pyramid, describe the ratio of males to females in the Japanese population age 80 and above.

1 point

Examples of acceptable responses may include the following:

- B1. There are more women than men or there are fewer men than women.
- B2. In the cohorts age 80–100+, the male population is approximately 3 percent to 4 percent of the total population, while the female population is approximately 6 percent to 7 percent of the total population.
- B3. In the cohorts age 80–100+, the male population is approximately half the size of the female population.

С

Describe one process that drives urbanization.

1 point

(Point 3)

Examples of acceptable responses may include the following:

- C1. Migration to cities or urban areas and/or increases in the population of a country, a city, metropolitan area, or an urban area.
- C2. Economic growth, trade, industrialization, and/or development in a country, metropolitan area, or an urban area.
- C3. Expansion of transportation and/or communication systems in a country, a city, metropolitan area, or an urban area.
- C4. Government development policies, zoning, and/or urban planning in a country, a city, metropolitan area, or an urban area.
- C5. Advancements in technology and/or infrastructure in a country, a city, metropolitan area, or an urban area.
- C6. Situation (a location's relationships to other places) influences the function and/or growth of cities.

D Describe one factor that may lead to a decrease in total population within a more (Point 4) developed country.

Examples of acceptable responses may include the following:

- D1. Declining fertility may lead to a decrease in the number of children born and/or to a decrease in total population.
- D2. Increasing mortality may lead to a higher death rate and/or to a decrease in total population.
- D3. Out-migration or emigration may lead to a decrease in total population.
- D4. Social or cultural factors (e.g., access to education and employment) may lead to decreased fertility and/or a decrease in total population.
- D5. Political factors (e.g., war, conflict, immigration policies) may lead to decreased fertility and/or a decrease in total population.
- D6. Medical factors (e.g., epidemics, access to health care) may lead to decreased fertility, increased mortality, and/or a decrease in total population.
- D7. Environmental factors (e.g., natural disasters, extreme weather, limited resources, pollution) may lead to increased mortality, and/or a decrease in total population.
- D8. Economic factors (e.g., high unemployment, economic recessions, high cost of living, limited social programs) may lead to a decrease in total population.

E Explain how a country's population pyramid can be used to predict the future (Point 5) needs of the population.

1 point

1 point

Examples of acceptable responses may include the following:

- E1. Pyramids can be used to predict future needs by analyzing pyramid shapes or population growth and/or decline to predict markets for goods or services.
- E2. Pyramids can be used to predict future needs by indicating an aging population, which will lead to increased demand for goods and services for older people (e.g., medical care, housing, products marketed to older citizens).
- E3. Pyramids can be used to predict future needs by indicating lower fertility or birth rates, which will lead to decreased demand for products and services for children (e.g., childcare, schools, recreational activities, products marketed to children).
- E4. Pyramids can be used to predict future needs by indicating a rapidly growing population and/or high birth rates, which will lead to increased demand for goods and services for children and/or families (e.g., childcare, schools, recreational activities, products marketed to children).
- E5. Pyramids can be used to predict future needs by indicating an aging population and/or low birth rates, which may lead to labor shortages and/or a need for migrants to provide goods or services.
- E6. Pyramids can be used to predict future needs by indicating a rapidly growing population and/or high birth rates, which may lead to an increase in the labor force and/or economic growth.

F Explain why the population pyramid provides limited information about (Point 6) immigration to cities in Japan.

1 point

Examples of acceptable responses may include the following:

- F1. Population pyramids do not provide data on migration, or population pyramids do not provide data on migration to Japan.
- F2. Population pyramids do not provide data on migration to cities, or population pyramids do not provide data on migration to cities within Japan.
- F3. This population pyramid shows country-scale data rather than city-scale data or data about the urban population in Japan.
- F4. Population pyramids are used to assess population growth and/or decline or used to predict markets for goods and/or services, but they are not used to assess migration data.
- F5. Population pyramids include data on age-sex structures, but they do not include migration data.

G Explain the degree to which a country's population growth rate may be affected (Point 7) by a pronatalist policy. (Response must indicate the degree [low, moderate, high] and provide an explanation.)

1 point

Examples of acceptable responses may include the following:

Statement of a moderate or high degree

AND

- G1. Pronatalist policies promote an increase in fertility through social programs and/or incentives.
- G2. Pronatalist policies may increase the population growth rate by allowing parents to keep their jobs, getting paid while taking care of their children, and/or not having to return to work right away.
- G3. Pronatalist policies may attract immigrants who find policy incentives (e.g., paid parental leave) attractive, increasing the population growth rate.

OR

Statement of a moderate or low degree

AND

- G4. Pronatalist policies may have little or no effect on population growth rates if the cost of raising children is still high and/or if parents lack adequate time to care for them.
- G5. Pronatalist policies may have little to no effect on population growth rates if the policies are not granted equally to all residents.
- G6. Pronatalist policies may have little impact on population growth rates because of differing societal norms (e.g., individual choice, concerns over environmental impact) and/or family structures.

Sample 2A 1 of 2

- A. Recently, Japan is experiencing a decrease in fertility rates. Over the past serveral years, Japan has experienced a drop in the CBR, showing that less babies have been born recently. The fertility rates are declining.
- B. Aged 80 and above, there is a visible difference between the number of males and females in the population. There is much more females 80 and above compared to the males. The women in Japan have a longer life expectancy than the mean because on avaerage, more women live to older age than the men. This could also be explained because women tend to live longer than men. In addition, this ratio could be due to men emmigrating out of Japan, as single, young men are much more likely to emigrate than women.
- C. Urbanization is driven by many factors, including the increase in job opportunities in urban areas. Urban areas have many job opportunities due to high density and many jobs needed, leading many families to move to urban areas seeking work.
- D. Many most developed countries are experiencing a decline in birth rates nationally, leading to a decrease in total population. One factor that causes the birth rates to drop is the education and empowerment of women. When women recieve adequate education and are able to have careers, they tend to not have children or have children later in life. Due to this, more developed countries will have a decrease in total population.
- E. Population pyramids are helpful indicators to predict the future needs of the population because they display the population by male and females in each age group. We are able to see the current and past trends in population and the amount of males and females are in each of the cohorts. Throughthis, we can predict the future trends in population, such as the birth rates and aging population. If the pyramid reflects a wide base with many birth rates, the country can plan to build new daycare centers and schools to meet the needs of the children and provide them with education. On the other hand, if the pyramid was inverted and reflected a high propotion of people 60+, the country could begin to provide for the aging population through creating elderly homes r establishing laws protecting social security for the elderly people.
- F. Population pyramids do not reflect or factor in immigration rates. In addition to this, the pyramid is limited as the scale is national, reflecting the entire country's population, not individual cities affected by immigration.
- G. A country's growth rate would be affected by a pronatalist policy to a high degree. Pronatalist policies are policies enacted by the government to encourage people to have children. An example may include free or low-cost daycare. The population would of a country would grow and be highly affected

Sample 2A 2 of 2

because more people would be able and willing to have babies, increasing the crude birth rates of the country.

Sample 2B 1 of 1

- a) Recently, there has been a decline in fertility as shown by the population pyramid. The bottom (younger cohorts) is thinner indicating there are less people being born, as opposed to the top (older cohorts) which is wider, meaning that the population is aging.
- b) In the Japanese population, the ratio of males to females is uneven; there are more females above age 80 than there are males above age 80.
- c) One process that drives urbanization is a rapidly growing population. When the population is rapidly increasing, more housing must be available. A solution to that is urbanization, which results in the construction of taller buildings, housing more people.
- d) One factor which may lead to a decrease in total population in a more developed country may be war. When war between states occurs, people must migrate to different areas to defend their country, and many may die in the process. This affects the total population of the country to decrease.
- e) A country's population pyramid can be used to predict the needs of future generations because it allows you to see how many people are in each age cohort, and the resources they would need. For example, if there is a large population over age 50, it can be predicted that there must be an increase in healthcare.
- f) The population pyramid provides limited information on immigration to cities in Japan because it does not account for the differences between those who were born in Japan and those who migrated there. It does not show how many people migrated to Japan and the impact they had on the population.
- g) A country's population growth rate will be affected by a pronatalist policy to a large degree. This is because pronatalist policies promote people to have children, increasing the crude birth rate of the country, and therefore increasing population growth rate.

Sample 2C 1 of 1

- A. Fertility rates in recent years are decreasing.
- B. There is more women in Japan that are more than 80 years old than there are men.
- C. The shift of agrarian societies to service based societies drives urbanization as more people move to urban areas to for acess to jobs and services.
- D. The role of women in society can cause the total population to decrease in a developed country as women are more likely to pursue an education and focus on their careers rather then raising children.
- E. Population pyramids can predict the growth of a society, allowing the government to create and implement plans like pronatalist and anti-natalist policies in order to supprt population change.
- F. The population pyramid is only able to increase by birth rates and not through immigration.
- G. Pronatalist policies affect the population growth rate at a high degree as they promote more babies to be born, meaning that the growth rate can increase significantly.

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 trend in fertility by stating that, "Japan is experiencing a decrease in fertility rates."

The response to part B earned 1 point. The response correctly describes the ratio of males to females in the Japanese population age 80 and above by stating that, "There is much more females 80 and above compared to the males."

The response to part C earned 1 point. The response correctly describes one process that drives urbanization by stating that, "Urban areas have many job opportunities ... leading many families to move to urban areas seeking work."

The response to part D earned 1 point. The response correctly describes one factor that may lead to a decrease in total population within a more developed country by stating that, "Many most developed countries are experiencing a decline in birth rates nationally, leading to a decrease in total population."

The response to part E earned 1 point. The response correctly explains how a country's population pyramid can be used to predict the future needs of the population by stating that, "If the pyramid reflects a wide base with many birth rates, the country can plan to build new daycare centers and schools to meet the needs of the children and provide them with education."

The response to part F earned 1 point. The response correctly explains why the population pyramid provides limited information about immigration to cities in Japan by stating that, "Population pyramids do not reflect or factor in immigration rates ... the scale is national, reflecting the entire country's population, not individual cities affected by immigration."

The response to part G earned 1 point. The response correctly explains the degree to which a country's population growth rate may be affected by a pronatalist policy by stating that policies would be effective to a high degree by providing things like "free or low-cost daycare" that would encourage people to have more children.

Question 2 (continued)

Sample: 2B

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: 0

Score: 6

The response to part A earned 1 point. The response correctly identifies the trend in fertility by stating that, "there has been a decline in fertility as shown by the population pyramid."

The response to part B earned 1 point. The response correctly describes the ratio of males to females in the Japanese population age 80 and above by stating that, "there are more females above age 80 than there are males above age 80."

The response to part C earned 1 point. The response correctly describes one process that drives urbanization by stating that, "One process that drives urbanization is a rapidly growing population."

The response to part D earned 1 point. The response correctly describes one factor that may lead to a decrease in total population by stating that armed conflict may result in population decline.

The response to part E earned 1 point. The response correctly explains how a country's population pyramid can be used to predict the future needs of the population by stating that, "if there is a large population over age 50, it can be predicted that there must be an increase in healthcare."

The response to part F earned 1 point. The response correctly explains why the population pyramid provides limited information about immigration to cities in Japan by stating that, "it does not account for the differences between those who were born in Japan and those who migrated there. It does not show how many people migrated to Japan and the impact they had on the population."

The response to part G did not earn a point. The response incorrectly explains the degree to which a country's population growth rate may be affected by a pronatalist policy by stating that implementing pronatalist policies can lead to an increase in the number of children being born "to a large degree" but does not explain how or why. The response would have earned the point if it had stated that pronatalist policies promote an increase in fertility to a moderate or high degree through social programs or incentives.

Question 2 (continued)

Sample: 2C

HG Point 1 Score: 1 HG Point 2 Score: 1 HG Point 3 Score: 1 HG Point 4 Score: 1 HG Point 5 Score: 0 HG Point 6 Score: 0 HG Point 7 Score: 0 Score: 4

The response to part A earned 1 point. The response correctly identifies the trend in fertility by stating that, "Fertility rates in recent years are decreasing."

The response to part B earned 1 point. The response correctly describes the ratio of males to females in the Japanese population age 80 and above by stating that, "There is more women in Japan that are more than 80 years old than there are men."

The response to part C earned 1 point. The response correctly describes one process that drives urbanization by stating that people move to urban areas for access to jobs and services.

The response to part D earned 1 point. The response correctly describes one factor that may lead to a decrease in total population within a more developed country by stating that population goes down "as women are more likely to pursue an education and focus on their careers rather then raising children."

The response to part E did not earn a point. The response incorrectly explains how a country's population pyramid can be used to predict the future needs of the population by stating that they are "allowing the government to create and implement plans like pronatalist and anti-natalist policies in order to supprt population change." The response would have earned the point if it had stated that population pyramids can be used to predict future needs by analyzing pyramid shapes to predict markets for goods and services.

The response to part F did not earn a point. The response incorrectly explains why the population pyramid provides limited information about immigration to cities in Japan by stating that they are only able to "increase by birth rates and not through immigration." The response would have earned the point if it had stated that country-scale population pyramids do not provide data on migration or cities.

The response to part G did not earn a point. The response incorrectly explains the degree to which a country's population growth rate may be affected by a pronatalist policy by stating that, "Pronatalist policies affect the population growth rate at a high degree as they promote more babies to be born, meaning that the growth rate can increase significantly" without specifying how or why. The response would have earned the point if it had stated that pronatalist policies promote an increase in fertility to a moderate or high degree through social programs or incentives.