

2023

AP[®]



AP[®] Human Geography

Sample Student Responses and Scoring Commentary Set 1

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Free-Response Question 1

- Scoring Guidelines**
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Question 1: No Stimulus**7 points****(A) Define the concept of RNI.****1 point**

Accept one of the following:

- A1. The difference between the crude birth rate and crude death rate.
- A2. The difference between the crude birth rate and crude death rate, expressed as a percentage or as thousands per population.
- A3. The number of live births and the number of deaths divided by the population per thousand population.
- A4. The difference between the crude birth rate and crude death rate over a particular time period (e.g., a year).
- A5. The annual percent change in population, not including immigration or emigration.

(B) Describe how a country may have a negative RNI.**1 point**

Accept one of the following:

- B1. A country can have a negative RNI if the death rate is higher than the birth rate in a given year.
- B2. A country can have a negative RNI if the number of deaths exceeds the number of live births in a given year.

(C) Compare ONE difference between RNI and the total fertility rate as indicators of population change.**1 point**

Accept one of the following:

- C1. RNI is the annual percent growth rate of a population (not including immigration or emigration), while the total fertility rate (TFR) estimates the number of children that may be born to women of birthing age or aged 15–45.
- C2. RNI includes both crude birth and death rates, while TFR is a measurement of the number of children likely to be born to a woman and does not involve any mortality measures.
- C3. RNI is an annual statistic for a specific year, while the TFR is an estimate at a specific point in time (e.g., snapshot).
- C4. An RNI of 0.0 is a zero-growth population, while a TFR of 2.1 is a population that is replacing itself but will not grow in numbers over time.
- C5. RNI can predict future population growth based upon the demographic transition, while TFR can predict future population growth by comparison to the replacement rate (TFR=2.1).

(D) Explain ONE reason why RNI in urban areas may vary significantly from RNI in rural areas in the same country. 1 point

Accept one of the following:

- D1. Urban populations tend to have fewer children than rural populations due to the reduced need for agricultural labor.
 - D2. The cost of living in urban areas (e.g., housing, schools) tends to be higher than in rural areas, and this may incentivize women to have fewer children leading to a lower RNI.
 - D3. Women in urban areas tend to have greater access to health care, health education, and/or family planning resources, which reduces the probability of having or the propensity to have children (fecundity).
 - D4. Women in urban communities commonly work outside of the home, having less time to care for children.
 - D5. Families in urban housing tend to have less space to house children.
 - D6. Women in urban areas tend to have higher levels of education, which reduces the probability of having children, the propensity to have children (fecundity), and/or delays the age at which women have children.
 - D7. Women in urban areas tend to have more political power, which reduces the probability of having children, the propensity to have children (fecundity), or delays the age at which women have children.
 - D8. Women in urban areas tend to have greater financial stability, which reduces the probability of having children, the propensity to have children (fecundity), or delays the age at which women have children.
 - D9. The higher level of access to health care in cities reduces infant and/or child mortality rates, which reduces the need for families to have additional children.
 - D10. People in rural areas may lack access to or may not be able to afford contraception and family planning due to increased levels of poverty, or lack of health services.
 - D11. People in rural areas may hold on to traditional cultural values that do not support limiting birth rates, resulting in higher rates of natural increase in rural areas.
 - D12. People in rural areas may need more children to work or help with labor-intensive agricultural work, resulting in higher rates of natural increase in rural areas.
 - D13. Women in rural areas may lack access to or may not be able to afford education, limiting opportunities outside the home, and resulting in higher rates of natural increase.
 - D14. Women in rural areas may have less access to health care which may increase infant mortality rates and/or child mortality rates, and/or increase the need or desire for families to have additional children.
-

(E) Explain why there are often differences in doubling times between less developed countries and more developed countries. 1 point

Accept one of the following:

- E1. Doubling times may vary because less developed countries (LDCs) have higher rates of natural increase than more developed countries (MDCs).
 - E2. Doubling times may vary because MDCs have lower rates of natural increase than LDCs.
 - E3. LDCs have social or economic conditions that may result in high population growth rates or high fertility rates (e.g., domestic role of women in society, low age of marriage, highly agricultural society, high levels of religious adherence, and/or high infant mortality rates, low availability of healthcare and/or family planning) that reduce the amount of time needed for a population to double in size, as compared to many MDCs, which do not have these social or economic conditions.
 - E4. MDCs have social and economic conditions that can result in low population growth rates and/or low fertility rates (e.g., equitable roles of women in society, marriage at a later age, service and technology-based economy, highly urbanized society, low levels of religious adherence, and/or low infant mortality rates, high accessibility to healthcare and/or family planning) that increase the amount of time needed for a population to double in size, as compared to many LDCs where these social and economic conditions do not exist.
 - E5. MDCs tend to have lower birth rates or lower total fertility rates than LDCs, which, combined with low death rates and/or a lower RNI, result in a longer doubling time in MDCs.
 - E6. LDCs tend to have higher RNIs than MDCs, resulting in a shorter doubling time in LDCs.
 - E7. LDCs tend to have higher birth rates or higher fertility rates than MDCs, which, combined with lower death rates and/or a higher RNI, result in a shorter doubling time in LDCs.
 - E8. MDCs tend to have lower RNI than LDCs, resulting in a longer doubling time in MDCs.
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(F) Explain ONE reason ethnonationalism might lead a government to promote pronatalist policies. 1 point

Accept one of the following:

- F1. A government might promote pronatalist policies because children can be seen as a symbol of national pride and/or a centripetal force (cultural cohesion).
 - F2. A government might promote pronatalist policies because increases in population of a national, ethnic, culture group, or nation-state can improve social cohesion or social relations.
 - F3. A government might promote pronatalist policies because increased birth rates can bolster the desire for territorial expansion, economic growth, irredentism, or militancy (e.g., increased size of the military, social status gained through military service).
 - F4. The government of a theocratic state might promote pronatalist policies based on religious doctrine.
 - F5. Some governments may promote pronatalist policies aimed at the majority (e.g., dominant) culture (e.g., ethnic) group to increase the political power of the majority and/or decrease the power of minority groups.
 - F6. A government with restrictive immigration laws or policies may promote pronatalist policies to reverse a declining total population.
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- (G) Explain the degree to which a unitary government may be more effective than a federal government in enforcing antinatalist policies. 1 point**

Accept one of the following:

Statement or indication of a moderate or high degree

AND

- G1. A unitary government could more easily enact countrywide family planning policies or laws that restrict reproduction (e.g., high penalties, criminalization, financial disincentives, use of informants and/or secret police to identify violators).
- G2. A unitary government may have an effective, specialized, and/or centralized national public health care system and/or national health insurance system (e.g., provide family planning services more effectively and/or at lower cost).
- G3. A unitary government may have a more efficient system to deliver incentives directly to participating citizens (e.g., have fewer levels of governance where money could be siphoned off for other public programs or be stolen through corruption).
- G4. A federal government may have regional variations in law or policy that could result in less effective programs in some areas (e.g., variations in the delivery of healthcare, access to family planning services, the enforcement of federal policies to control population or reduce fertility rates).

OR

Statement or indication of a low or moderate degree

AND

- G5. There may be little to no difference between the effectiveness of unitary governments and federal governments to deliver an antinatalist policy if there is an inadequate, inaccessible, and/or unaffordable healthcare system (e.g., developing effective family planning programs or policies, access to family planning services).
- G6. There may be little to no difference between the effectiveness of unitary governments and federal governments to deliver an antinatalist policy if there is an adequate, accessible, and/or affordable healthcare system.
- G7. There may be little to no difference between the effectiveness of unitary governments and federal governments to deliver an antinatalist policy if the government lacks enforcement capabilities or lacks the ability to fund and/or deliver incentives to participating citizens.

Total for question 1: 7 points

Important: Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1

Question 2

Question 3

Begin your response to each question at the top of a new page. Do not skip lines.

A) The concept of Rate of Natural Increase rate is the Crude Birth Rate minus the crude death rate which gives you the Rate of Natural Increase which is how much a population decreases or increases. ~~then~~ this will give you the RNI.

B) A country could have a negative RNI when the Crude birth rate is lower than the crude death rate. This will cause a negative RNI. For example if a country had a crude birth rate of 1000 ~~people~~ and a crude death rate of 2000 ~~people~~ $1000 - 2000 = -1000$ ~~people~~ which would be a negative RNI.

C) A difference between RNI and total fertility rate is, RNI is the ~~rate~~ ^{rate} of change in a population which can be increasing or decreasing it is the crude birth rate minus the crude death rate and the total fertility rate is the amount of children a woman has in her lifetime so RNI is the total population change and total fertility rate is the amount of children born per woman. ~~the people~~

D) One reason why RNI in urban areas may vary significantly from RNI in rural areas ~~is because~~ in the same country is because → D) continues

Page 2

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- **Important:** Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1

Question 2

Question 3

Begin your response to each question at the top of a new page. Do not skip lines.

D) ~~urban~~ in urban areas people tend to have less children because they are working and don't have enough time to have so many children cause there working and in rural areas families will have more kids because they need people to help out on farms, etc. So the RNI in Urban areas will be ~~try~~ less than in rural areas. Rural areas RNI will be higher.

E) There is often times differences in doubling time between less developed countries and more developed countries because in LDC families are more likely to have more kids because woman aren't working as much, they need more people to work on their subsistence farm and families will have more kids hoping for them to live due to there lack of health care. and for MPC it is different because women tend to work more causing them to be educated and to have less kids so the doubling time in a LDC can be very fast cause of how many children are born and the doubling time in MPC is lower because they are having less children.

F) One reason ethnonationalism might lead to a government to promote pronatalist policies is, if a country has many ethnicities inside of there country the people will tend to be more accepting → F) Next page.

Page 3

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Important: Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1

Question 2

Question 3

Begin your response to each question at the top of a new page. Do not skip lines.

F) and this can lead governments to promote these protectionist policies in their state and this is caused by ethnonationalism.

~~F)~~ G) a unitary government may be more effective than a federal government in enforcing antinationalist policies because a unitary government has the power and laws are made by one centralized government and a federal government has more power and laws made by giving power to different parts of the state. So it could be ~~more~~ more effective for a unitary state to enforce antinationalist policies because it is a centralized government and they can enforce these policies to the entire state.

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Important: Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1

Question 2

Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

A. The RNI (rate of natural increase) is the difference between crude death rate and crude birthrate, to determine a ~~popul~~ countries overall population changes.

B. If the number of deaths in a cantry (CDR) is more than the number of births each year (CBR) in a country, then the cantry will have a negative NAI.

C. RNI measures how much a population grows over time, and takes into account both the CBR and CDR. ~~Total~~ Total fertility rate measures the ~~av~~ average number of children a woman has. Because RNI measures CDR, while TFR does not, it is a more accurate system to ~~measure~~ calculate how a cantries population is affected.

D. ~~Urban-to-~~ Rural-to-Urban migration is often very common in many different countries. Many people in a country will move to urban places and cities for ~~job opportunities~~. ~~If there are more people~~ more specialized medical care. ~~If there is better medical care in urban areas, and these are more populated, then the RNI will be higher. This will differ from the rural areas in a country, which have~~ a lower RNI.

E. Less developed countries often experience doubling times much more often than more developed countries. A LDC ~~has~~ has a fast growing population because they have recently been industrialized and have

Page 2

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Important: Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1

Question 2

Question 3

Begin your response to each question at the top of a new page. Do not skip lines.

more access to ~~the~~ new medicine, as shown in the DTM. Because of ~~more a~~ this rapidly growing population, the population will begin to double in size overtime. However, more developed countries are generally in stage 4 or 5 of the DTM, meaning that they have a more stable population, so ~~it will to~~ they will not double in size.

F. If a country experiences ethnonationalism, they have great pride in their country, and their ethnicity is the same as their nation. The government might want to share this pride with the world, and want to expand their population so that the number of people with the same ethnicity and nation can increase. The government could implement pronatalist policies such as paid maternity leave and free childcare systems.

G. A unitary government can implement laws across the an entire country much more effectively than a federal government. A unitary government ~~could have~~ has full ~~so~~ governmental control over a country, while a federal government has small local governments that each have different laws depending on the state. Therefore, a unitary government can implement anti-natalist policies much faster, because they don't have to ask for local governments permission. For example, China which is a unitary government, once used the "one-child policy" as an anti-natalist policy, which only allowed one child.

Page 3

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Important: Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1 Question 2 Question 3

Begin your response to each question at the top of a new page. Do not skip lines.

- A. RNI helps geographers know if a population is increasing or declining so they know what they need to do for the area/country.
- B. A country may have a negative RNI if its in stage 4 or 5 of the DTM $\frac{1}{2}$ can have a higher death rate than ~~EDR~~ ~~Total fertility rate~~ Births ~~rate~~.
- C. RNI is comparing both the death rate $\frac{1}{2}$ ~~fertility rate~~ $\frac{1}{2}$ which is higher while total fertility rate indicates amount of births only.
- D. RNI in Urban areas can be lower since that part of the country is higher in the DTM while the rural area may still be in stages 1-3.
- E. Less developed countries have a ~~lower RNI~~ higher RNI $\frac{1}{2}$ lower population while most developed countries have a higher population w/ lower RNI. Since the populations lower $\frac{1}{2}$ the RNI's higher, the less developed country will have a faster doubling time.
- ~~F. So the nation can have ~~is~~ structured ethnicity.~~
- ~~G.~~
- F. to have a dominant $\frac{1}{2}$ structured/powerful Ethnicity.
- G. Unitary governments can work the whole country to follow $\frac{1}{2}$ go against the policy rather than federal which only a few of the government ^{sectors} may agree.

$\frac{1}{2}$ = and

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Question 1

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

Overview

In this zero-stimulus question, students were expected to examine how the concept of rate of natural increase (RNI) is used to help understand population growth and decline. Students were expected to draw from two main units for this question: Unit 2 (Population and Migration Patterns and Processes) and Unit 4 (Political Patterns and Processes). The main skills for this question were found in Skill Category 1 (Concepts and Processes) and Skill Category 2 (Spatial Relationships).

In part A students were asked to define the concept of RNI.

In part B students were asked to describe how a country may have a negative RNI.

Two common concepts in the study of population growth and change are RNI and total fertility rate (TFR). In part C students were asked to compare one difference between these two concepts as indicators of population change.

Recognizing that RNI could vary from one place to another within the same country, part D asked the students to explain one reason why RNI in urban areas may vary significantly from RNI in rural areas in the same country.

As rates of growth may vary from country to country, in part E students were asked to explain why the population growth rate indicator, doubling time, is often different between less developed countries (LDCs) and more developed countries (MDCs).

Part F asked students to make connections between the political geography concept of ethnonationalism and pronatalist policies. This part asked students to explain one reason ethnonationalism might lead a government to promote pronatalist policies.

Part G asked students to make connections between political geography and population change by asking them to explain the degree to which a unitary government may be more effective than a federal government in enforcing antinatalist policies.

Sample: 1A

Score: 6

The response to part A earned 1 point because it defines the concept of natural increase rates as the difference between the crude birth rate and the crude death rate.

The response to part B earned 1 point because it describes how a country might have a negative rate of natural increase when a country's crude death rate is higher than the crude birth rate. Note that the example and calculations in the response are irrelevant to this answer.

The response to part C earned 1 point because it compares the rate of natural increase as the annual growth rate of a population and the total fertility rate as the number of children born to a woman of birthing age.

Question 1 (continued)

The response to part D earned 1 point because it explains how the rate of natural increase in urban areas is lower than the natural rate of increase in rural areas due to women commonly working outside the home and having less time to care for children.

The response to part E earned 1 point because it explains why less developed countries have reduced doubling times due to having a highly agricultural society.

The response to part F did not earn a point because it does not explain correctly why ethnonationalism might lead a government to promote pronatalist policies. Ethnonationalism suggests that one group is favored over another and not, as the response suggests, that people will be more accepting of other ethnicities.

The response to part G earned 1 point because it explains how a unitary government is effective to a high degree in enforcing antinatalist policies, while a federal government has regional variations in laws or policies in some areas. The response earned the “degree to which” part by stating that a unitary government may be “more effective.”

Sample: 1B

Score: 5

The response to part A earned 1 point because it defines the concept of natural increase rates as the difference between the crude birth rate and the crude death rate.

The response to part B earned 1 point because it describes how a country can have a negative rate of natural increase when the number of deaths exceeds the number of births in a given year.

The response to part C earned 1 point because it compares the rate of natural increase as the annual growth rate of a population and the total fertility rate as the number of children born to a woman of birthing age.

The response to part D did not earn a point because it does not explain why RNI in urban areas may vary significantly from rate of natural increase in rural areas in the same country. The response reverses the relationship between RNI in urban areas and in rural areas.

The response to part E did not earn a point because it does not explain why there are differences in doubling time between less developed countries and more developed countries. The response needs to tie differences in doubling time in a less developed country versus a more developed country more explicitly to their impact on birth rates and death rates, and therefore doubling times.

The response to part F earned 1 point because it explains how a government might promote pronatalist policies as a symbol of national pride.

The response to part G earned 1 point because it explains how a unitary government is more effective to a high degree in enacting countrywide family planning policies or laws that restrict reproduction.

Question 1 (continued)

Sample: 1C

Score: 2

The response to part A did not earn a point because it does not define the rate of natural increase as the difference between crude birth rate and crude death rate.

The response to part B earned 1 point because it correctly describes a negative rate of natural increase as occurring when the crude death rate is greater than the crude birth rate.

The response to part C did not earn a point because it does not correctly compare RNI and total fertility rate; it incorrectly describes total fertility rate as being the number of births rather than the number of children born to women of childbearing age.

The response to part D did not earn a point because it does not explain a reason why birth rates and death rates, which are the variables used to calculate RNI, can be different in urban and rural areas.

The response to part E earned 1 point because it explains that the rate of RNI is used to determine the doubling time. The response identifies that higher RNIs in less developed countries generate a lower doubling time, while lower RNIs in more developed countries generate a higher doubling time. The total population is not needed for this response.

The response to part F did not earn a point because it does not explain why ethnonationalism might lead a government to promote policies to increase the number of births.

The response to part G did not earn a point because it neither “explains the degree to which” nor explains how a unitary government would be able to effectively enforce policies preventing childbirths.