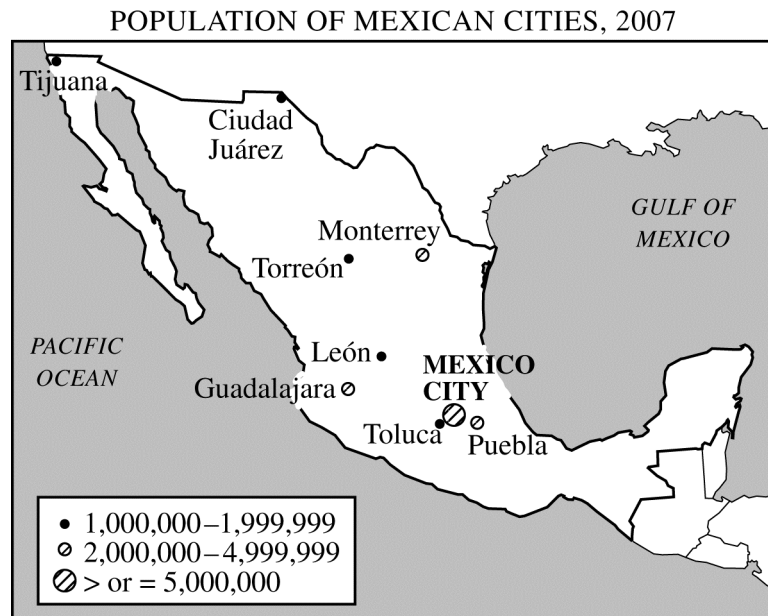


2011 AP[®] HUMAN GEOGRAPHY FREE-RESPONSE QUESTIONS



City	1975	2007	2015
Ciudad Juárez	474,000	1,343,000	1,478,000
Guadalajara	1,850,000	4,198,000	4,673,000
León	589,000	1,488,000	1,682,000
Mexico City	10,690,000	19,028,000	20,189,000
Monterrey	1,589,000	3,712,000	4,140,000
Puebla	858,000	2,195,000	2,474,000
Tijuana	355,000	1,553,000	1,799,000
Toluca	309,000	1,531,000	1,671,000
Torreón	556,000	1,144,000	1,280,000

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2006 Revision and The 2007 Revision*, <http://esa.un.org/unup>.

1. The map and table above show the geographic location, population growth, and projected growth of Mexico's most populous cities.
 - A. Define the following terms and describe how each relates to Mexico's urban geography.
 - Primate city
 - Rank-size rule
 - B. Explain TWO positive effects of primate cities on a country's economic development and TWO different negative effects of primate cities on a country's economic development.

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2. In 1798 Thomas Robert Malthus published *An Essay on the Principle of Population* in which he argued that population growth will inevitably outpace food production, resulting in widespread famine.
 - A. Identify and explain TWO reasons why some geographers today believe Malthus' theory can be used to predict future population issues.
 - B. Identify and explain TWO reasons why some geographers today believe Malthus' theory cannot be used to predict future population issues.

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Question 1

The map and table above show the geographic location, population growth, and projected growth of Mexico's most populous cities.

Part A (3 points)

Define the following terms and describe how each relates to Mexico's urban geography.

Primate city (1 point)
Magnitude (it is more than two times the size of the next-largest city) AND significance (it exerts social, political, economic dominance).

Rank-size rule (1 point)
Nth largest city is $1/n$ smaller than the largest city; more small cities, fewer larger cities.

Note: Do not grant credit if student misrepresents the proportion by saying $\frac{1}{2}$ for all relationships.

Describe how each relates to Mexican urban geography (1 point)
Mexico does not comply with the rank-size rule (there is a poorly developed urban hierarchy because Mexico City is a primate city).
OR
Mexico City is an example of a primate city because it is disproportionately larger than other Mexican cities and dominates the country.

Note: Either argument will earn the point, but students cannot contradict themselves.

Part B (4 points)

Explain TWO positive effects of primate cities on a country's economic development ...

Positive effects (1 point each; total of 2 points)
<ul style="list-style-type: none">• Advantages of agglomeration of economic activity.• Large market for goods and services.• Ability to offer high-end goods and services (including education) because of larger threshold population.• Advantages of enhanced flow of information and ideas in large population.• Advantages of centralized transportation and communication network.• Global trade opportunities; primate cities can compete on a global scale and attract foreign investment.

Note: The response must focus on and explain the positive impact on economic development; for example, tourism in primate cities must be linked to economic benefits to the nation's economy.

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Question 1 (continued)

... and TWO different negative effects of primate cities on a country's economic development.

Negative effects (1 point each; total of 2 points)
<ul style="list-style-type: none">• Unequal distribution of investments deters national economic development.• Unequal economic and/or resource development.• Unequal distribution of wealth and/or power.• Transportation network (hub and spoke) prevents equal accessibility to all regions.• Impact of centrifugal forces and difficulties of political cohesion on economic development.• Brain drain — migration and unequal distribution of education, entrepreneurship, opportunities.• Disproportionate effect of disaster in the primate city on entire country.• Negative externalities, e.g., unsustainable urban growth/slums/environmental impacts if these are related to economic development, e.g., burden on national economy to cope with problems.