

Past-paper walk-through

Scales of Analysis ■ 1.6

eXercise

Questions in this set

- 2025 Set 2 Q3
- 2023 Set 1 Q3

Reading the mark scheme

- **B1** a mark that stands on its own – the point is either made or not.
- **M1** a *method* mark: the right approach, even if the number is wrong.
- **A1** an *answer* mark, and it usually needs its M mark first.
- **C1** a working mark on the way to the answer.
- **//** separates answers the examiner accepts equally.
- **ecf** = error carried forward: a later part is marked on your own earlier answer.
- **owtte** = “or words to that effect” – the wording need not match.

Question 3

2025 Set 2 ■ Q3

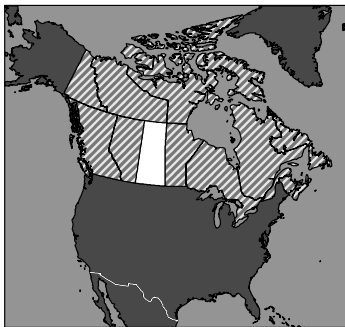
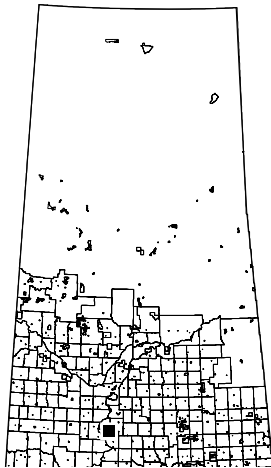
The two maps show political boundaries in Saskatchewan, Canada, and in Finland. Both Finland and Saskatchewan are home to populations of indigenous peoples with a significant amount of political autonomy. Finland is a member state of the European Union.

- (a)** Identify the scale of analysis used for Finland's political divisions in Map 2.
- (b)** Define geometric boundaries as shown in Map 1.
- (c)** Describe one function of internal boundaries.
- (d)** Explain how the spatial organization of a country such as Canada is affected by a federal system of governance.
- (e)** Explain how the supranational organization shown in Map 2 may limit the actions of Finland as a member state.

Question 3

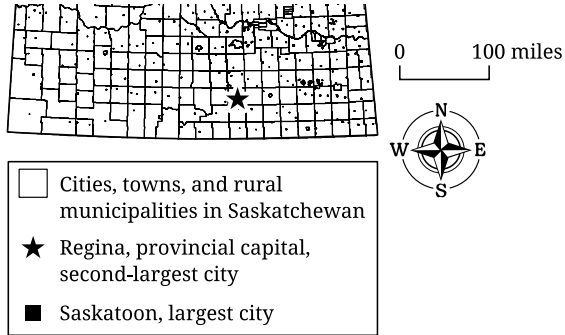
- (f)** Describe one characteristic of a cultural landscape that may reflect cultural beliefs and identities.
- (g)** Explain how communication technologies may affect the cultural patterns of indigenous languages.

Question 3



-  Saskatchewan
-  Other Canadian provinces and territories
-  Other countries

Question 3



Source: Statistics Canada

Question 3

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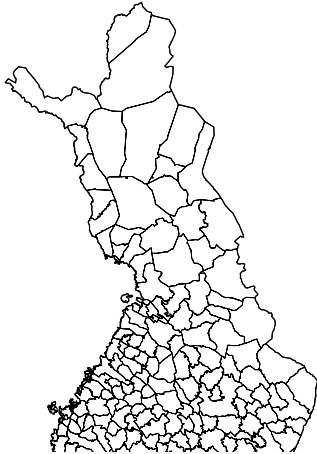
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AP HUMAN GEOGRAPHY 2025 ▪ **FREE-RESPONSE QUESTIONS**

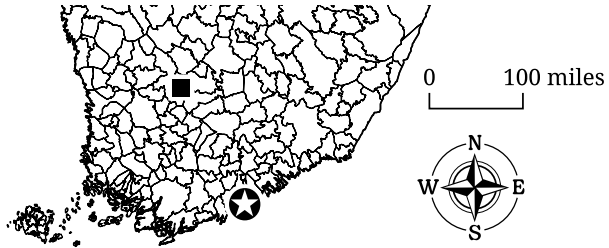
Map 2: Political Divisions in Finland

Question 3



- Finland
- Other European Union countries
- Other countries

Question 3



Solution 3

(a)

Mark scheme

- - Local scale (e.g., city, town, rural municipality) or subnational scale.

Solution 3

(b)

Mark scheme

- - Border lines on a map (two-dimensional plane) that are straight, angled, and/or curved to form a geometric shape (e.g., straight line, square, rectangle, circle, other polygons).
- - A boundary or border drawn based on lines of latitude and longitude, a grid system, and/or a township and range system (baselines and meridians).
- - Boundary lines drawn without regard to the physical or cultural landscape.

Solution 3

(c) Mark scheme

- - Internal boundaries define the limits of sovereignty or government control between one subnational region and another.
- - Internal boundaries delimit or unify different types of subnational regions (e.g., voting districts, states, provinces, territories, special administrative regions, autonomous zones).
- - Internal boundaries can unify or separate distinct ethnic, cultural, or national groups.

Solution 3

- - Internal boundaries can delineate, divide, or fragment zones of public infrastructure and/or local government (e.g., water districts, school districts, voting districts).
- - Internal boundaries can reflect, preserve, or reduce cultural, linguistic, or historical identities.
- - Internal boundaries can prevent, resolve, or exacerbate conflicts.
- - Internal boundaries can facilitate or hinder the collection or analysis of data.
- - Internal boundaries can facilitate or hinder the management, protection, or distribution of natural resources or ecosystems.

Solution 3

(d) Mark scheme

- - Federal systems of governance affect the spatial organization of a country by creating locally based, dispersed power centers (e.g., subnational state or provincial capitals).
- - Countries with a federal system of governance are typically organized into subnational units (e.g., autonomous regions, semiautonomous regions) and/or have regional capitals that may help reduce centrifugal forces and/or limit ethnic separatism.
- - Federal systems tend to divide large amounts of land area into subnational divisions that may be difficult to govern from a centralized or single capital.

Solution 3

- - Federal systems tend to divide multicultural countries into subnational divisions based on cultural differences (e.g., ethnic, religious, and/or linguistic diversity) that may be difficult to govern from a centralized or single capital.

Solution 3

(e) Mark scheme

- - The EU may enact international laws or policies that limit the economic actions of Finland or other member states (e.g., reducing or eliminating trade barriers, introducing a common currency, regulating industry).
- - The EU may implement international laws or policies that limit the political actions of Finland or other member states (e.g., requiring common border policies, observing elections, sharing a common foreign policy).
- - By joining the EU, Finland has agreed to allow the EU government to make laws and regulations on behalf of Finland and the other member states.

Solution 3

(f) Mark scheme

- - Art, music, toponyms, clothing, architecture, and/or evidence of sequent occupancy may indicate elements of a culture or cultures.
- - Religion, language, social institutions, and/or systems of governance may be based on a culture or cultures.
- - Land use, land survey patterns, agriculture, resource use (e.g., hunting, fishing, crafts), and/or trade may indicate the practices of a culture or cultures.
- - Foods, social interactions, holidays, and/or festivals are based on or have elements of a culture or cultures.

Solution 3

- - Attitudes towards ethnicity or gender (e.g., the role of women in the workforce) may help shape the use of space in a given society.

Solution 3

(g) Mark scheme

- - Communication technologies (e.g., the Internet) may encourage members of indigenous communities to adopt more commonly used languages (e.g., English), resulting in indigenous language loss.
- - Language loss may occur due to cultural convergence, which is accelerated by the use of communication technologies.
- - Communication technologies may increase the availability of indigenous language resources (e.g., via websites, apps, social media), resulting in language preservation.

Solution 3

- - Communication technologies may be used to increase awareness of indigenous identity issues, which may result in language preservation.
- - Limited access or cultural resistance (e.g., reliance on oral tradition) to communication technologies can restrict or prevent significant changes in the cultural patterns of indigenous languages.

Question 3

2023 Set 1 ■ Q3

Two stimuli.

Stimulus 1 (map): MAJOR MEDICAL AND BIOTECHNOLOGY COMPANIES AND INSTITUTIONS IN THE BOSTON AND PROVIDENCE REGION. An inset map shows the downtown areas of Boston and Cambridge, Massachusetts, with numerous medical and biotechnology companies and institutions clustered together along the Charles River and arterial routes. Source: National Institutes of Health.

Stimulus 2 (table): SELECTED TECHNOLOGY RESEARCH AND DEVELOPMENT AREAS IN THE MEDICAL FIELD.

Category	Product or Service
Biotechnology	Genetic engineering research; Biochemistry research; Diagnostic and testing science
Gene therapies	Cancer treatments; Neurological treatments; Rare and genetic disease treatments; Antiviral treatments and vaccines (e.g., Moderna)

Question 3

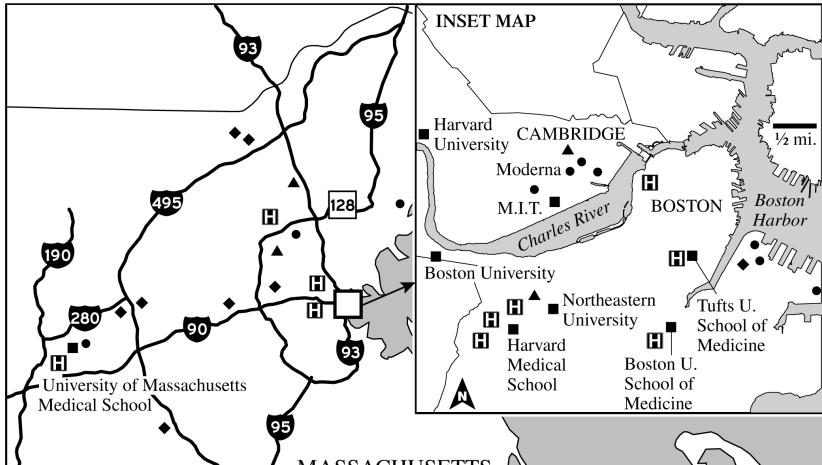
Since the 1980s, the northeastern United States has developed into a major global center of high-technology industry that specializes in the medical field.

- (a) Describe the spatial pattern of the companies and institutions shown in the inset map.
- (b) Describe the concept of a growth pole.
- (c) Explain ONE way education infrastructure affects a region's potential for high-technology development.
- (d) Explain how the pattern shown on the map resembles the galactic city model.
- (e) Explain ONE way local economic changes may be a result of deindustrialization.
- (f) Explain how the products and services listed in the table demonstrate that this economy has moved into the quaternary sector.

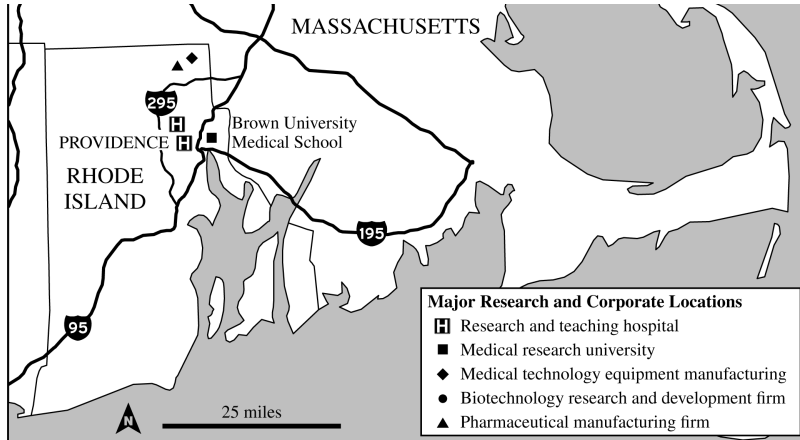
Question 3

(g) The map focuses on a regional scale. Explain a possible limitation of drawing country scale conclusions from a regional scale map.

Question 3



Question 3



Source: National Institutes of Health

Figure 1.1.1. Map of Providence, Rhode Island, showing major research and corporate locations.

Solution 3

(a)

Mark scheme

- Describe the spatial pattern on the inset map (1 point) — accept any: agglomeration of similar economic activities; clustering/concentration of similar activities; concentration along transportation routes (rivers, arterial roads); a concentration of similar economic activities within a metropolitan area in Massachusetts.

Solution 3

(b)

Mark scheme

- Describe a growth pole (1 point) — accept any: a location where research, development, and/or innovation generates new products or services; an institution (university, hospital, laboratory) whose discoveries/inventions create new economic opportunities; an area where new businesses start up or locate to join an emerging market or attract investment; an area attracting businesses seeking a specialized/educated labor pool; an area designated by government to facilitate economic activity for a specific purpose.

Solution 3

(c) Mark scheme

- Explain ONE way education infrastructure affects high-technology potential (1 point) — accept any: graduates who stay in the region promote development, create innovative products, and provide wealth for investment; educational institutions build a specialized labor force that attracts high-tech firms/investors; institutions sponsor research yielding new products/services, value, investment, and employment; public investment in specialized training/infrastructure (positive), or, conversely, lack of educational infrastructure hurts potential by leaving no highly educated/specialized workforce or sponsored research.

Solution 3

(d)

Mark scheme

- Explain resemblance to the galactic city (peripheral) model (1 point) — accept any: multiple development centers (edge cities, CBDs, suburban CBDs) based on specialized products/services; a decentralized pattern of business spread across the region; a circumferential/circular/radial highway pattern typical of a galactic city; several highway intersections serving as nodes for new business districts or development centers.

Solution 3

(e) Mark scheme

- Explain ONE local economic change from deindustrialization (1 point) — accept any: a shift from a manufacturing/secondary economy to a service/technology (tertiary, quaternary, or quinary) economy; outsourcing of manufacturing abroad causing declining local employment or rising unemployment; increased CBD unemployment, declining investment, or falling real-estate values from lost manufacturing firms/jobs; increased use of post-Fordist methods (specialized firms, just-in-time supply chains, flexible production); falling GNI per capita or rising unemployment/underemployment as workers lose manufacturing jobs.

Solution 3

(f)

Mark scheme

- Explain how the listed products/services show a quaternary economy (1 point): the biotechnology and gene-therapy research, development, and information/knowledge-based services listed (genetic engineering research, biochemistry research, diagnostic science, R&D of treatments and vaccines) are knowledge-, information-, and research-intensive activities that define the quaternary sector, rather than the extraction (primary), manufacturing (secondary), or routine service (tertiary) sectors.

Solution 3

(g)

Mark scheme

- Explain a limitation of drawing country-scale conclusions from a regional-scale map (1 point): the map shows only one region (a metropolitan area of Massachusetts), so its pattern is not representative of the whole country — other regions may have different or no such clustering, so generalizing the regional agglomeration to the national scale would be inaccurate. Changing the scale of analysis changes the pattern observed and the conclusions drawn.