

Past-paper walk-through

Population Composition ■ 2.3

eXercise

Questions in this set

- 2025 Set 1 Q2
- 2024 Set 2 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 2

2025 Set 1 ■ Q2

A population pyramid shows changes in population over time. A population pyramid breaks down the population by male and female and divides the population into five-year age groupings called cohorts.

(a) Identify the recent trend in fertility shown in the population pyramid.

Question 2

2025 Set 1 ■ Q2

A population pyramid shows changes in population over time. A population pyramid breaks down the population by male and female and divides the population into five-year age groupings called cohorts.

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

Question 2

2025 Set 1 ■ Q2

A population pyramid shows changes in population over time. A population pyramid breaks down the population by male and female and divides the population into five-year age groupings called cohorts.

(c) Describe one process that drives urbanization.

Question 2

2025 Set 1 ■ Q2

A population pyramid shows changes in population over time. A population pyramid breaks down the population by male and female and divides the population into five-year age groupings called cohorts.

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

Question 2

2025 Set 1 ■ Q2

A population pyramid shows changes in population over time. A population pyramid breaks down the population by male and female and divides the population into five-year age groupings called cohorts.

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

Question 2

2025 Set 1 ■ Q2

A population pyramid shows changes in population over time. A population pyramid breaks down the population by male and female and divides the population into five-year age groupings called cohorts.

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

Question 2

2025 Set 1 ■ Q2

A population pyramid shows changes in population over time. A population pyramid breaks down the population by male and female and divides the population into five-year age groupings called cohorts.

(g) Explain the degree to which a country's population growth rate may be affected by a pronatalist policy. (Response must indicate the degree [low, moderate, high] and provide an explanation.) 5 Map 1: Cow's Milk Production, 2018 Source: Food and Agriculture Organization Map 2: Pork Production, 2018 Source: Food and Agriculture Organization 6

Solution 2

(a)

Mark scheme

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

Solution 2

(b)

Mark scheme

- - There are more women than men or there are fewer men than women.
- - 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.
- - In the cohorts age 80–100+, the male population is approximately half the size of the female population.

Solution 2

(c) Mark scheme

- - Migration to cities or urban areas and/or increases in the population of a country, a city, metropolitan area, or an urban area.
- - Economic growth, trade, industrialization, and/or development in a country, metropolitan area, or an urban area.
- - Expansion of transportation and/or communication systems in a country, a city, metropolitan area, or an urban area.
- - Government development policies, zoning, and/or urban planning in a country, a city, metropolitan area, or an urban area.

Solution 2

- - Advancements in technology and/or infrastructure in a country, a city, metropolitan area, or an urban area.
- - Situation (a location's relationships to other places) influences the function and/or growth of cities.

Solution 2

(d) Mark scheme

- - Declining fertility may lead to a decrease in the number of children born and/or to a decrease in total population.
- - Increasing mortality may lead to a higher death rate and/or to a decrease in total population.
- - Out-migration or emigration may lead to a decrease in total population.
- - Social or cultural factors (e.g., access to education and employment) may lead to decreased fertility and/or a decrease in total population.
- - Political factors (e.g., war, conflict, immigration policies) may lead to decreased fertility and/or a decrease in total population.

Solution 2

- - Medical factors (e.g., epidemics, access to health care) may lead to decreased fertility, increased mortality, and/or a decrease in total population.
- - Environmental factors (e.g., natural disasters, extreme weather, limited resources, pollution) may lead to increased mortality, and/or a decrease in total population.
- - Economic factors (e.g., high unemployment, economic recessions, high cost of living, limited social programs) may lead to a decrease in total population.

Solution 2

(e) Mark scheme

- - 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.
- - 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).
- - 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).

Solution 2

- - 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).
- - 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.
- - 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.

Solution 2

(f) Mark scheme

- - Population pyramids do not provide data on migration, or population pyramids do not provide data on migration to Japan.
- - Population pyramids do not provide data on migration to cities, or population pyramids do not provide data on migration to cities within Japan.
- - This population pyramid shows country-scale data rather than city-scale data or data about the urban population in Japan.
- - 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.

Solution 2

- - Population pyramids include data on age-sex structures, but they do not include migration data.

Solution 2

(g) Mark scheme

- To earn the point, state a DEGREE (high, moderate, or low) to which a pronatalist policy affects the population growth rate AND support it with a valid justification.
- For a HIGH degree (raises growth):
 - - Pronatalist policies promote higher fertility through social programs and/or incentives.
 - - They may raise growth by letting parents keep their jobs, be paid while caring for children, and/or not return to work immediately.

Solution 2

- - They may attract immigrants drawn by incentives (e.g., paid parental leave), increasing growth.
- For a MODERATE or LOW degree (little effect):
- - Little or no effect if the cost of raising children stays high and/or parents lack time to care for them.
- - Little or no effect if the policies are not granted equally to all residents.
- - Little impact because of societal norms (individual choice, environmental concerns) and/or family structures.

Question 3

2024 Set 2 ■ Q3

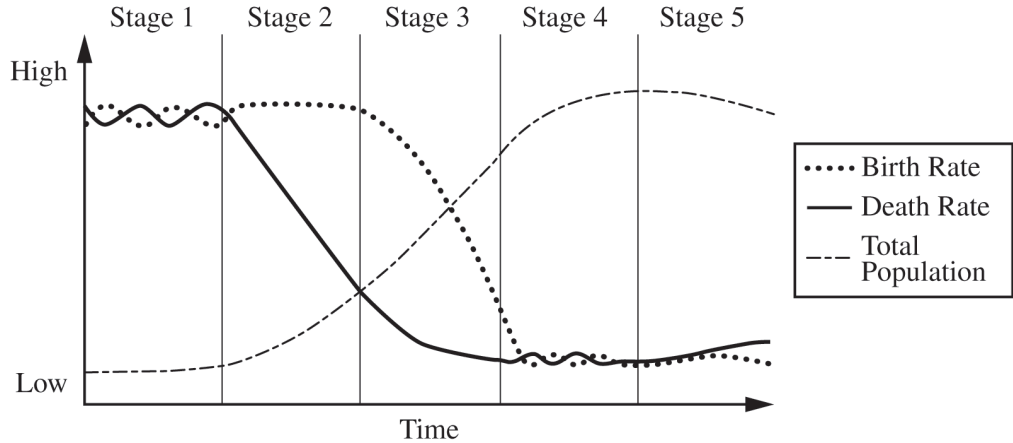
The demographic transition model can be used to theorize the changes in a country's total population over time.

- (a)** Select ONE country listed in the table and identify its stage in the demographic transition model.
- (b)** Define the concept of a pronatalist policy.
- (c)** Explain ONE factor that affects birth rates as countries move from stage 3 to stage 4 in the demographic transition model.
- (d)** Describe ONE likely economic effect when countries have negative population growth.
- (e)** Based on the data shown in the table, describe a policy that a government might develop in response to demographic change.

Question 3

- (f)** Explain ONE reason why the life expectancy in urban areas may be higher than the life expectancy in the entire country.
- (g)** Using the data in the table, explain how, over time, low birth rates may impact the country's percent of population over age 65.

Question 3



Solution 3

(a)

Mark scheme

- - Any country in the table (Croatia, Estonia, Germany, Greece, Japan, Portugal, or Romania) and stage 4 or stage 5.

Solution 3

(b)

Mark scheme

- - Pronatalist policies are those that encourage or promote population growth.
- - Government programs that provide incentives (e.g., longer parental leave, childcare, tax credits) for increasing fertility rates and/or population growth.
- - Pronatalist policies are designed to increase the birth rate and/or the fertility rate of an area.

Solution 3

(c) Mark scheme

- - Increased access to health care, contraceptives, and/or other family planning information tends to reduce the number of children born.
- - Increased access to education and/or employment of women is generally associated with lower fertility.
- - More people live in urban areas where space is limited or the cost of living makes raising children more expensive, reducing the birth rate.
- - People may have fewer children over time as agricultural production requires less labor (e.g., mechanization, agricultural chemicals).

Solution 3

- - Decreases in infant and/or child mortality rates may reduce the need to have more children.
- - Government policies and/or programs may reduce fertility (e.g., antinatalist policies).

Solution 3

(d) Mark scheme

- - A country with an aging population or a high elder dependency ratio may spend more money on programs for the elderly or retired.
- - A low youth dependency ratio may create an opportunity for public funds to be shifted from education and/or childcare needs to social services for the elderly.
- - Countries may not have a large enough workforce or enough working-aged people to support the economy and/or pay taxes.
- - Employers may need migrants to supplement declining labor pools and/or a smaller workforce.

Solution 3

- - Primary sector activities that are labor-intensive may be limited as the economy shifts to activities that require fewer workers.
- - Economies may shift from labor-intensive primary and/or secondary sector activities to tertiary or higher-sector activities that can be performed by an aging workforce or outsourced to workers in other countries.
- - Large companies may create economies of scale and/or increase usage of technology to create more efficient production processes that use fewer workers.
- - Economic stagnation and/or decline may occur when there are fewer people to purchase goods, real estate, and/or services.

Solution 3

(e) Mark scheme

- - Governments might implement pronatalist or population growth policies and/or increase immigration.
- - Pro-immigration policies might include expanding access to public benefits or services and/or provide assistance with assimilation.
- - Pronatalist policies might include increased parental leave, increased tax incentives, government-subsidized childcare, and/or family-friendly employment law.
- - Governments might redesign finance or tax structures (e.g., changes to social security and/or pension systems) that affect the elderly population.

Solution 3

- - Governments might expand health care options for the elderly population (e.g., retirement or nursing homes, health clinics, specialty hospitals), and/or governments might train professionals specializing in geriatric health care.
- - Governments might support programs to meet the social needs of senior citizens (e.g., adult day care, senior centers, senior housing).
- - Governments might support policies that improve infrastructure to make landscapes, signage, transportation, and/or buildings more friendly to the elderly.
- - Governments might try to slow or halt rural population loss by improving rural-to- urban transportation systems, encouraging remote work, and/or promoting rural economic growth (e.g., tourism, industry).

Solution 3

(f) Mark scheme

- - Urban areas may have better access to food, health care, sanitation, and/or social services.
- - There may be greater access to education, nutritional information, and/or health information in urban areas.
- - Urban working conditions may include shorter daily working hours, fewer weekly hours, less physically demanding work, and/or better safety (e.g., fewer work accidents).
- - Urban living may lead to healthier lifestyles due to greater access to recreation facilities, sports activities, walkable cities, and/or bikeable cities.

Solution 3

(g)

Mark scheme

- - Low birth rates may lead to an increase in the percent of population over age 65 because the overall population ages and/or there are fewer children.
- - If birth rates drop below death rates or if the rate of natural increase is negative, the overall population will age and/or the percent of population over age 65 will increase.