Exercise walk-through

1.2
Population challenges, policies and migration

International Baccalaureate · IB Diploma · Geography · SL

How populations change

- The **demographic transition model** (DTM) shows how birth and death rates change as a country develops:
- *Demographic transition: death rates fall before birth rates, and the gap is population growth*
- The model is based on European history.
- It does not include migration, and it does not say how long each stage lasts: China passed through stages 2 to 4 in about 50 years, much faster than Britain.

$$\text{dependency ratio} = \frac{\text{aged 0–14} + \text{aged 65 and over}}{\text{aged 15–64}} \times 100$$

Challenges and policies

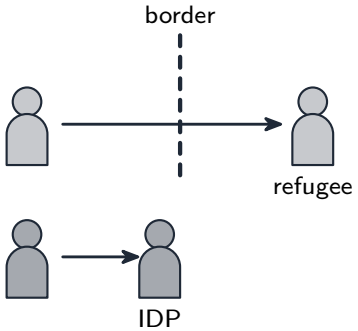
- **Ageing populations** have more older people: Japan had about 29% of its people aged 65 and over in 2023.
- Problems: fewer workers, more spending on pensions and health care.
- Opportunities: older people care for grandchildren and volunteer, and "silver" industries grow. **Youthful populations** need schools and jobs; without jobs, young people may migrate or become frustrated.
- Governments respond with policies:

Common errors

- Confusing the birth rate (births per 1,000 people) with the fertility rate (children per woman).
- Forgetting migration: total population change is **natural increase** plus **net migration**.
- Treating the **demographic transition model** as a forecast; it describes the past of today's rich countries and may not fit every country.

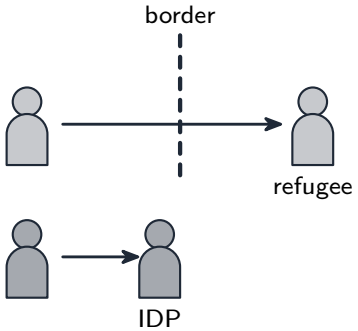
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2.1 Distinguish between a **refugee** and an **internally displaced person** (IDP). [2]



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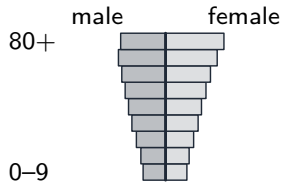


2.1

a refugee has crossed an international border to escape war or persecution; an IDP has also been forced to flee but is still inside their own country

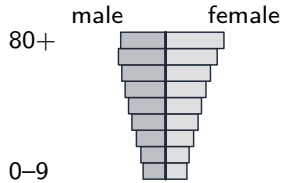
Exercise 2.2

2.2 In 2023 about 29 % of Japan's people were aged 65 and over. Outline **two** problems and **one** opportunity of this ageing population. [3]



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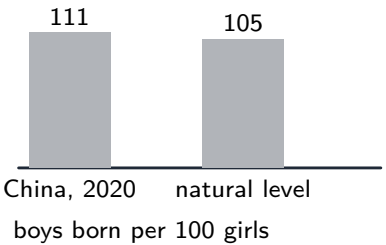


2.2

problems, any two: fewer people of working age / labour shortages; higher spending on pensions and health care, paid by fewer taxpayers; empty villages and closed schools in rural areas; opportunity: older people give childcare or volunteer / a "silver" market for health, leisure and care services

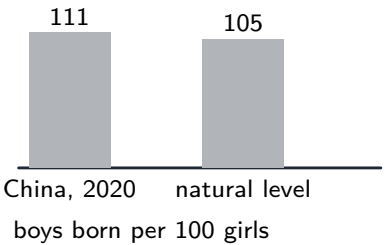
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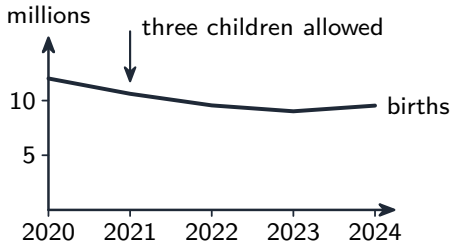


2.3

$1{,}000 \times \frac{111}{100} = 1{,}110$ boys, against $1{,}000 \times \frac{105}{100} = 1{,}050$; **60** more boys

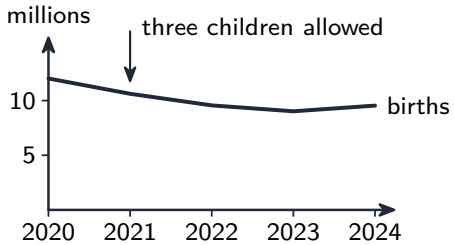
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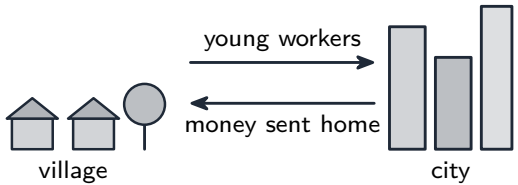


2.4

any three: high costs of housing, education and childcare; people marry and have children later, or not at all; more women are educated and work, so the cost of leaving work is high; small families have become the normal choice after decades of the one-child policy; policies on births work slowly, so the effect may come later

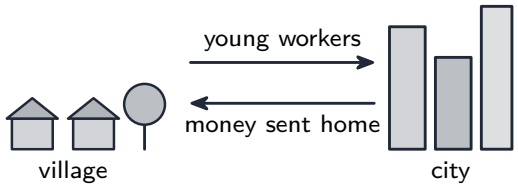
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any two, each explained: remittances pay for houses, school fees and farm inputs in the village; loss of young workers, so farmland is left unused or farmed by older people; “left-behind” children grow up with grandparents, which can affect their schooling and well-being; the village population ages, so schools close and care needs grow

Exercise 3.1 (a)

3.1 *(Paper 2 style.)* The graph shows the approximate total fertility rate (TFR) in China.

(a) Describe the change in China's TFR from 1970 to 2023. Use data from the graph. [2]

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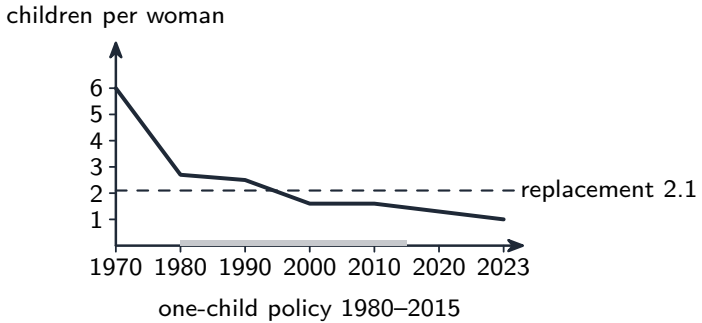
(a) Describe the change in China's TFR from 1970 to 2023. Use data from the graph. [2]

(a) a large fall from about 6 in 1970 to about 1.0 in 2023; fastest in the 1970s, then slower; below the replacement level (2.1) since about 1990

Exercise 3.1 (b)

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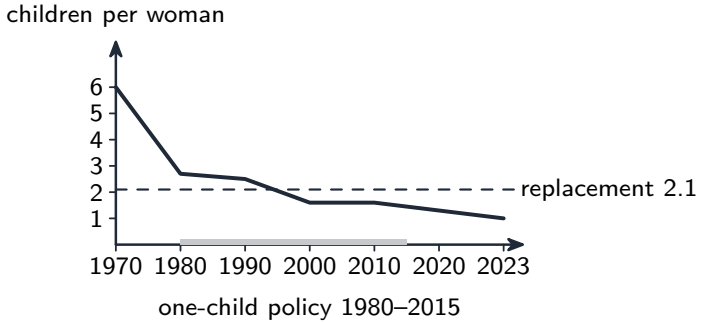
(b) Explain why China's TFR fell during the 1970s, before the one-child policy began. [4]



Exercise 3.1 (b)

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(b) Explain why China's TFR fell during the 1970s, before the one-child policy began. [4]



(b) the "later, longer, fewer" campaign of the 1970s encouraged later marriage, longer gaps between births and fewer children; better health care meant more children survived, so families needed fewer births; more education and work for women, and contraception became available

Exercise 3.2

3.2 Evaluate the effectiveness of government policies that aim to change the birth rate. [10]

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Mark with the markbands: [9-10] focused on the command term, detailed and accurate knowledge, well-developed explanation, specific named examples (places, dates, numbers), balanced evaluation and a supported conclusion; [7-8] mostly focused, good knowledge and examples, some evaluation; [5-6] relevant knowledge and examples, explanation partly developed, little evaluation; [3-4] general knowledge, few examples, mostly description; [1-2] little that is relevant. Points that may be included: anti-natalist: China's one-child policy (1980–2015) prevented many births and slowed growth; but the TFR had already fallen to under 3 before 1980, so other factors (health, education, the 1970s campaign) did much of the work; side effects: a sex ratio of about 111 boys per 100 girls and faster ageing; pro-natalist: China's two-child (2016) and three-child (2021) policies: births still fell, to 9.54 million in 2024; costs of housing, education and childcare matter more than permission; France: family payments, tax benefits and cheap childcare; its fertility has been among the highest in the EU, though still below 2.1; pro-natalist policies seem to work best when they lower the real cost of children over many years; anti-natalist policies are easier to enforce than pro-natalist ones, because a government can limit births but cannot make people want more children; conclusion: policies can speed up or slow down change, but economic and social change explains most of it