

# 2.1 Population Distribution

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

Total: 10 marks

## Objective

Build the skills to answer exam questions on **population distribution** 人口分布 and **density** 人口密度.

**You must be able to:**

- explain the physical factors that attract people (climate, water, flat land, good soil)
- explain the human factors that attract people (jobs, transport, cities)
- calculate and compare **arithmetic** 算术密度, **physiological** 生理密度, and **agricultural density** 农业密度
- describe where the world's people are concentrated

## 1 Worked examples

Study these first. Each one shows the method for a task used later.

### ■ Why people cluster

People concentrate where the **physical** environment is welcoming —mild climate, fresh water, flat land, fertile soil —and where **human** factors like jobs and transport exist. Deserts, ice, and high mountains stay empty.

### ■ Three density measures

**Arithmetic density** = total people ÷ total land. **Physiological density** = people ÷ *farmable* land. **Agricultural density** = farmers ÷ farmable land.

### ■ Reading the measures

A high **physiological** density means much pressure on the farmland that exists. A low **agricultural** density suggests efficient, mechanised farming (few farmers feed many).

## 2 Practice

2.1 State two physical factors that attract dense human settlement.

[2]

**2.2** Define physiological density. [2]

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**2.3** A country has 20 million people, 200,000 km<sup>2</sup> of land, of which 50,000 km<sup>2</sup> is farmable.

(a) Calculate its arithmetic density. [1]

(b) Calculate its physiological density. [1]

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### 3 Exam-style questions

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**3.1** The number of people per unit of arable land is the [1]

- **A** arithmetic density
  - **B** physiological density
  - **C** agricultural density
  - **D** population pyramid
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**3.2** Most of the world's population is concentrated in [1]

- **A** high mountains and deserts
  - **B** midlatitude coasts and river valleys
  - **C** polar regions
  - **D** tropical rainforests only
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**3.3** Country X has a low agricultural density.

(a) State what agricultural density measures. [1]

(b) Explain what a low value suggests about its farming. [1]

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### 4 Go further

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- work through the **2.1 Population Distribution** lesson on the **Learn** page;

- read the **Population and Migration** section of the AP Human Geography handout on the **Know** page.

## Solutions

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**2.1** any two of: mild/temperate climate, fresh water, flat land, fertile soil, coastal access.

**2.2** the number of people per unit of arable/farmable land.

**2.3** (a)  $20,000,000 \div 200,000 = 100$  people/km<sup>2</sup>. (b)  $20,000,000 \div 50,000 = 400$  people/km<sup>2</sup> of arable land.

**3.1 B.** people per arable land = physiological density.

**3.2 B.** people cluster on temperate coasts and fertile river valleys.

**3.3** (a) the number of farmers per unit of farmable land. (b) few farmers work the land, suggesting efficient/mechanised, developed farming.