

2.1 Population Distribution

Name: _____ Class: _____ Date: _____ **Total: 10 marks**

KEY WORDS density 人口密度 • physiological 生理密度 • agricultural density 农业密度
• arithmetic 算术密度 • population distribution 人口分布

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]

2.3 A country has 20 million people, 200,000 km² of land, of which 50,000 km² is farmable.

(a) Calculate its arithmetic density. [1]

(b) Calculate its physiological density. [1]

3 Exam-style questions

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

- | | |
|---|---|
| A | B |
| C | D |
- A arithmetic density
B physiological density
C agricultural density
D population pyramid

3.2 Most of the world's population is concentrated in [1]

- | | |
|---|---|
| A | B |
| C | D |
- A high mountains and deserts
B midlatitude coasts and river valleys
C polar regions
D tropical rainforests only

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]