

# 1.6 Scales of Analysis

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

**Total: 10 marks**

**KEY WORDS** national 国家 • scale of analysis 分析尺度 • global 全球 • region 区域 • local 地方

## Objective

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Build the skills to answer exam questions on **scales of analysis** 分析尺度.

**You must be able to:**

- list scales of analysis: **global** 全球, **regional** 区域, **national** 国家, **local** 地方
- explain how the scale chosen changes what a pattern shows
- distinguish scale of analysis from map scale
- explain how **aggregation** 聚合 of data hides local variation

## 1 Worked examples

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

### ■ Scales of analysis

Data can be studied at **global, regional, national, or local** scale. The scale you choose changes the conclusions you can draw.

### ■ Scale changes the story

A country may look wealthy at the **national** scale, yet at the **local** scale hide poor neighbourhoods. Zooming in reveals variation the national average hides.

### ■ Scale of analysis vs map scale

**Scale of analysis** = the level (local...global) you study data at. **Map scale** = the ratio of map distance to real distance. They are different ideas.

## 2 Practice

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**2.1** List the four common scales of analysis from smallest to largest. [2]

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**2.2** Explain how national-scale data can hide a local pattern. [2]

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**2.3** A map shows average income by country.

(a) State the scale of analysis. [1]

(b) State one thing this scale cannot show. [1]

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### 3 Exam-style questions

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**3.1** Studying voting results street by street in one town uses a [1]

- **A** global scale
  - **B** local scale
  - **C** national scale
  - **D** map projection
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**3.2** Combining many small areas into one large-area statistic is called [1]

- **A** aggregation
  - **B** diffusion
  - **C** distance decay
  - **D** projection
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**3.3** A country's literacy rate is 95%.

(a) What scale of analysis is this figure? [1]

(b) Explain why a regional government might still find low-literacy areas. [1]

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## Solutions

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**2.1** local, national, regional, global.

**2.2** a national average combines everyone; it can mask rich and poor areas that only appear at the local scale.

**2.3** (a) national scale. (b) differences within a country — local rich/poor areas.

**3.1 B.** street-by-street within a town is the local scale of analysis.

**3.2 B.** merging data into larger units is aggregation.

**3.3** (a) national scale. (b) the national average aggregates all regions, hiding local areas below 95%.