

3.10 Lists

Name: _____ Class: _____ Date: _____ Total: 8 marks

KEY WORDS list 列表 • elements 元素 • index 索引 • append 追加 • string 字符串

Objective

Build the skills to answer exam questions on **lists**.

You must be able to:

- explain how a **list** 列表 stores an ordered collection of **elements** 元素
- access or modify an element using its **index** 索引 position
- use **iteration** to traverse a list
- apply list operations such as **append** 追加, insert, and remove

1 Worked examples

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

■ List and index

A **list** stores an ordered collection of values under one name. Each element has an **index** (position); here the first element is at index 1.

■ Operations

append (add to the end), **insert** (add at a position), **remove** (delete an element).

■ Traversing

Use **iteration** to visit and process every element. For `scores = [8, 5, 9]`, `scores[1]` is 8 and `scores[3]` is 9.

2 Practice

2.1 Define a list. [1]

2.2 For the list [4, 7, 2, 9], state the element at index 2. [1]

2.3 Name one operation that changes a list's contents. [1]

3 Exam-style questions

3.1 A list stores [1]

- | | |
|---|---|
| A | B |
| C | D |
- A one value only
B an ordered collection of values
C only text
D a single Boolean

3.2 To process every element of a list, you use [1]

- | | |
|---|---|
| A | B |
| C | D |
- A a filter only
B iteration
C a substring
D compression

3.3 A list `names = ["Ana", "Ben", "Cara"]` (index 1 is first).

(a) State `names[1]`. [1]

(b) State the length of the list. [1]

(c) Name the operation that adds "Dan" to the end. [1]