

3.4 Strings

Name: _____ Class: _____ Date: _____

Total: 8 marks

Objective

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

You must be able to:

- explain how a **string** 字符串 is an ordered sequence of characters
- use **concatenation** 拼接 to join strings
- find the **length** 长度 of a string
- extract a **substring** 子串 or a single character

1 Worked examples

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

■ Strings

A **string** is an ordered sequence of characters used to store text, e.g. "hello".

■ Concatenation and length

Concatenation joins strings: "foot" + "ball" gives "football". The **length** is the number of characters: `length("cat")` is 3.

■ Substrings

You can extract a **substring** or an individual character from within a string, and use these operations to process **user input** such as names.

2 Practice

2.1 Define a string. [1]

2.2 State the result of concatenating "sun" and "flower". [1]

2.3 State the length of the string "data". [1]

3 Exam-style questions

3.1 Joining two strings into one is called [1]

- A iteration
 - B concatenation
 - C compression
 - D assignment
-

3.2 The length of the string "hello" is [1]

- A 4
 - B 5
 - C 6
 - D 1
-

3.3 A program greets a user by name.

(a) State the result of concatenating "Hi, " and "Ana". [1]

(b) State the length of "Ana". [1]

(c) State the data type used to store a name. [1]

4 Go further

- work through the **3.4 Strings** lesson on the **Learn** page;
- read the **Algorithms and Programming** section of the AP Computer Science Principles handout on the **Know** page.

Solutions

2.1 an ordered sequence of characters used to store text.

2.2 "sunflower".

2.3 4.

3.1 B.

3.2 B.

3.3 (a) "Hi, Ana". (b) 3. (c) a string.