

4.6 Using Text Files

Name: _____ Class: _____ Date: _____

Total: 8 marks

Objective

Build the skills to answer exam questions on **using text files**.

You must be able to:

- use the **Scanner** 扫描器 class to read data from a **text file** 文本文件
- open a file with a **File** object and read it line by line
- use methods such as `hasNextLine`, `nextLine`, and `nextInt`

1 Worked examples

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

■ Reading a file with a Scanner

```
Scanner in = new Scanner(new File("data.txt"));
while (in.hasNextLine()) {
    String line = in.nextLine();
}
```

■ Useful methods

- `hasNextLine()` —true while there is another line to read.
- `nextLine()` —reads and returns the next line.
- `nextInt()` —reads the next integer.

2 Practice

2.1 Name the class commonly used to read a text file. [1]

2.2 State what `hasNextLine()` returns. [1]

2.3 Name a method that reads one line of a file. [1]

3 Exam-style questions

3.1 To read a text file line by line, you loop while [1]

- A `hasNextLine()`
 - B `nextLine()`
 - C `length`
 - D `size()`
-

3.2 `nextInt()` reads [1]

- A a whole line
 - B the next integer
 - C an entire file
 - D a boolean
-

3.3 A program reads numbers from a file.

(a) Name the class used. [1]

(b) Name a method that checks whether there is more input. [1]

(c) Name a method that reads the next integer. [1]

4 Go further

- work through the **4.6 Using Text Files** lesson on the **Learn** page;
- read the **Array** section of the AP Computer Science A handout on the **Know** page.

Solutions

2.1 Scanner.

2.2 true if there is another line to read, otherwise false.

2.3 `nextLine()`.

3.1 A.

3.2 B.

3.3 (a) Scanner. (b) `hasNextLine()` (or `hasNextInt()`). (c) `nextInt()`.