

3.9 this Keyword

Name: _____ Class: _____ Date: _____

Total: 8 marks

KEY WORDS constructor 构造函数

Objective

Build the skills to answer exam questions on **the this keyword**.

You must be able to:

- understand that **this** refers to the current object
- use **this** to distinguish an instance variable from a parameter of the same name
- explain how **this** gives a method access to its object

1 Worked examples

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

■ The this keyword

this refers to the **current object** — the one the method was called on.

■ Telling apart same-named variables

When a parameter has the **same name** as an instance variable, **this.** picks out the instance variable:

```
public void setName(String name) {  
    this.name = name;    // instance variable = parameter  
}
```

Here **this.name** is the object's field and **name** (on the right) is the parameter.

2 Practice

2.1 State what **this** refers to.

[1]

2.2 State one use of **this**.

[1]

2.3 In `this.age = age;`, state which `age` is the instance variable. [1]

3 Exam-style questions

3.1 The keyword `this` refers to [1]

- **A** the class
 - **B** the current object
 - **C** a parameter
 - **D** a static variable
-

3.2 `this` is used to distinguish an instance variable from a [1]

- **A** method
 - **B** parameter of the same name
 - **C** class
 - **D** constructor
-

3.3 `public void setSpeed(int speed) { this.speed = speed; }.`

(a) State what `this.speed` refers to. [1]

(b) State what `speed` (on the right) refers to. [1]

(c) State what `this` refers to. [1]

Solutions

2.1 the current object.

2.2 to distinguish an instance variable from a same-named parameter.

2.3 `this.age` (the left side).

3.1 B.

3.2 B.

3.3 (a) the instance variable. (b) the parameter. (c) the current object.