

# 1.7 Application Program Interface (API) and Libraries

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

Total: 8 marks

**KEY WORDS** class 类 • api 应用程序接口 • library 库 • abstraction 抽象 • reference 引用

## Objective

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Build the skills to answer exam questions on the **Application Program Interface (API)** and **libraries**.

**You must be able to:**

- understand that an **API** 应用程序接口 describes how to use a class
- explain that a **library** 库 is a collection of prewritten, reusable classes
- read an API entry to find a method's name, parameters, and return value
- locate classes in the AP Java **Quick Reference**

## 1 Worked examples

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

### ■ API and library

An **API** describes **how to use** a class without knowing how it is built inside. A **library** is a collection of prewritten classes that programmers reuse.

### ■ Reading an API

An API entry gives a method's **name**, its **parameters**, and its **return value** — enough to call it correctly.

### ■ Quick Reference

Reusing library classes supports **abstraction** and saves work; the AP Java **Quick Reference** lists the classes and methods you may use.

## 2 Practice

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**2.1** State what an API describes.

[1]

**2.2** Define a library. [1]

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**2.3** State one benefit of reusing library classes. [1]

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### 3 Exam-style questions

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**3.1** An API describes [1]

- |   |   |
|---|---|
| A | B |
| C | D |
- A** how a class is built inside  
**B** how to use a class  
**C** the hardware  
**D** the compiler

**3.2** A library is a collection of [1]

- |   |   |
|---|---|
| A | B |
| C | D |
- A** errors  
**B** prewritten reusable classes  
**C** variables  
**D** bytes

**3.3** A student looks up how to call a method.

(a) Name what documents the method's parameters and return value. [1]

(b) State one benefit of using a library. [1]

(c) Name the reference used in the AP exam. [1]