

Exercise walk-through

Application Program Interface (API) and Libraries ■ 1.7

eXercise

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**

Method — 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.

Method — Reading an API

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

Method — Quick Reference

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

Practice 2.1 ■ 1 mark

State what an API describes.

Solution 2.1

Worked steps

how to use a class (without knowing its internal details) **B1**.

Practice 2.2 ■ 1 mark

Define a library.

Solution 2.2

Worked steps

a collection of prewritten classes that can be reused **B1**.

Practice 2.3 ■ 1 mark

State one benefit of reusing library classes.

Solution 2.3

Method: Quick Reference

Worked steps

it saves work and supports abstraction **B1**.

Exam-style 3.1 ■ 1 mark

An API describes

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

Solution 3.1

A how a class is built inside

B how to use a class 

C the hardware

D the compiler

Worked steps

B.

Exam-style 3.2 ■ 1 mark

A library is a collection of

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

Solution 3.2

Method: API and library

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

Worked steps

B.

Exam-style 3.3 ■ 1 mark

A student looks up how to call a method.

- (a) Name what documents the method's parameters and return value.
- (b) State one benefit of using a library.
- (c) Name the reference used in the AP exam.

Solution 3.3

Method: Reading an API

Worked steps

(a) the API [B1](#). (b) it saves writing code from scratch [B1](#). (c) the AP Java Quick Reference [B1](#).