

1.7 Application Program Interface (API) and Libraries

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

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

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

2.1 State what an API describes. [1]

2.2 Define a library. [1]

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

3 Exam-style questions

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]