

Exercise walk-through

Program Function and Purpose ■ 1.2

eXercise

You must be able to

- explain the **purpose** 目的 of a program (the problem it solves)
- describe how a program **functions** as a sequence of instructions
- identify a program's **inputs** 输入 and **outputs** 输出
- explain how an **event** 事件 affects execution

Method — Purpose vs function

The **purpose** is the problem the program solves or the value it provides; the **function** is **how** it works — the sequence of instructions it runs.

Method — Inputs and outputs

Inputs can be text, clicks, images, audio, or data from another program; **outputs** can be displayed text, sound, visuals, or tactile feedback.

Method — Events

An **event** is an action associated with input (e.g. a click or key press) that triggers part of the program to run.

Practice 2.1 ■ 2 marks

State the difference between a program's purpose and its function.

Solution 2.1

Method: Purpose vs function

Worked steps

the purpose is the problem it solves; the function is how it works (its sequence of instructions) **B1** **B1**.

Practice 2.2 ■ 2 marks

Give two examples of program input.

Solution 2.2

Method: Events

Worked steps

any two of: text typed, a mouse click, an image, audio, sensor data **B1** **B1**.

Practice 2.3 ■ 1 mark

Define an event in a program.

Solution 2.3

Method: Events

Worked steps

an action associated with input that triggers part of the program to run **B1**.

Exam-style 3.1 ■ 1 mark

The purpose of a program is

A the language it is written in

B the problem it solves

C its file size

D its author

Solution 3.1

Method: Purpose vs function

A the language it is written in

B the problem it solves 

C its file size

D its author

Worked steps

B.

Exam-style 3.2 ■ 1 mark

A mouse click that starts an action is an example of an

A output

B event

C variable

D loop

Solution 3.2

Method: Events

A output

B event



C variable

D loop

Worked steps

B.

Exam-style 3.3 ■ 1 mark

A weather app takes a city name and shows the forecast.

- (a) State its input.
- (b) State its output.
- (c) State its purpose.

Solution 3.3

Worked steps

(a) the city name **B1**. (b) the displayed forecast **B1**. (c) to give the user weather information **B1**.