

KEY WORDS type 类型 • variable 变量 • primitive types 基本类型 • floating-point 浮点
• identifiers 标识符

Build the skills to answer exam questions on **variables** and **data types**.

- understand that a **variable** 变量 is a named location in memory
- declare variables of the primitive types **int**, **double**, and **boolean**
- distinguish an integer from a **floating-point** 浮点 value
- use meaningful, valid **identifiers** 标识符

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

A **variable** is a named memory location that stores a value. Each variable has a fixed **data type**:

- `int` — a whole number, e.g. `int age = 17;`
- `double` — a decimal (floating-point) number, e.g. `double price = 2.5;`
- `boolean` — `true` or `false`, e.g. `boolean done = false;`

Use clear, valid names (letters, digits, _; not starting with a digit), such as `studentCount`.

2.1 Name the three primitive types above. [2]

2.3 Write a declaration for a `double` variable named `price` holding 4.99. [1]

3.1 Which type stores true or false? [1]

- ### 3.2 A valid declaration of an integer is [1]

- 3.3** Consider `int count = 5;` and `double avg = 8.5;`.

- State the type of `count`. [1]
- State the type of `avg`. [1]
- State whether `boolean done = 1;` is valid. [1]