

Exercise walk-through

Measuring and Sighting ■ 3.1

eXercise

You must be able to

- measure with one comparative unit
- check angles by rotating the pencil
- use **plumb lines** 铅垂线 for alignment
- draw the **envelope** 外包形 first

Method — Sighting

A locked, fully extended arm turns the pencil into a ruler and protractor. Same arm, same lean, same eye every time.

Method — Comparative units

Pick one unit (a head, a cup) and measure everything in it — ‘the body is 7.5 heads’ is a comparative measurement.

Method — Envelope first

Draw the big simple shape that contains the whole subject, then divide it.

Practice 2.1 ■ 1 mark

When sighting, your measuring arm must be

- A** bent comfortably
- B** fully extended, elbow locked
- C** resting on the easel
- D** behind your back

Solution 2.1

- A** bent comfortably
- B** fully extended, elbow locked
- C** resting on the easel
- D** behind your back



Worked steps

- B.** a locked, extended arm keeps the unit constant.

Practice 2.2 ■ 2 marks

What is a plumb line and what does it check?

Solution 2.2

Worked steps

an imagined vertical **B1**; it checks which landmarks line up directly above/below each other **B1**.

Practice 2.3 ■ 1 mark

Why draw the envelope before the details?

Solution 2.3

Method: Envelope first

Worked steps

it fixes the overall size and proportion so details sit correctly **B1**.