

3.1 Measuring and Sighting

Name: _____ Class: _____ Date: _____ **Total: 10 marks**

KEY WORDS envelope 外包形 • plumb line 铅垂线 • comparative measurement 比较测量
• proportion 比例 • sighting 目测

Objective

Measure accurately by **sighting** 目测 with a pencil at arm’s length.

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

1 Worked examples

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

■ **Sighting**

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

■ **Comparative units**

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

■ **Envelope first**

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

2 Practice

2.1 When sighting, your measuring arm must be [1]

- A

B

C

D

A bent comfortably

B fully extended, elbow locked

C resting on the easel

D behind your back

2.2 What is a plumb line and what does it check? [2]

2.3 Why draw the envelope before the details? [1]

3 Studio & portfolio tasks

3.1 Make a **measured observational drawing** of a still life.

- (a) Block the envelope, then use a comparative unit to place the parts. [3]
- (b) Use at least two plumb lines to check alignments. [1]

3.2

() Draw one object, then check three measurements by sighting and correct any errors.[2]