Drawing a Lobster: Segmented Body, Claws, and Antennae

Original tasks 1, 2, 3, 4 / complete keys

Task 1

On a 10 cm body axis, use a 2:3:1 ratio. Calculate the length of each zone.

Answer: Cephalothorax about 3.33 cm, abdomen 5 cm, tail fan about 1.67 cm.

Reason: The ratio parts sum to 6. Divide 10 cm by 6 to get about 1.67 cm per part. Multiply: 2 parts is about 3.33 cm, 3 parts is 5 cm, and 1 part is about 1.67 cm. These three lengths add to 10 cm. If you prefer whole numbers, use a 12 cm axis instead, which gives exact 4 cm, 6 cm, and 2 cm zones.

Check: Add the three zone lengths and confirm they equal the chosen axis length within your rounding rule.

Task 2

A cephalothorax is 6 cm long. Using the one-third rule, what claw length should you aim for?

Answer: About 2 cm.

Reason: One-third of 6 cm is 2 cm. This is a hypothetical proportion for checking, not a biological standard.

Check: Multiply your chosen claw length by 3 and compare it to the cephalothorax length.

Task 3

You draw six abdomen segments on a 6 cm abdomen zone. If each segment is equal in length, how long is each segment?

Answer: 1 cm per segment.

Reason: Divide the 6 cm abdomen zone by 6 segments. Equal division is a simplification; tapering is added by narrowing the segment widths, not necessarily changing their lengths.

Check: Add the six segment lengths and confirm the total equals the abdomen zone length.

Task 4

A tail fan is drawn 5 cm wide. The abdomen's widest point is 4 cm. Is the fan within the suggested check?

Answer: No. The fan is wider than the abdomen's widest point by 1 cm.

Reason: The suggested check is that the fan's total width is roughly equal to the abdomen's widest point. A 5 cm fan against a 4 cm abdomen exceeds that check.

Check: Compare the fan width and abdomen width directly; if the fan is wider, narrow the blades or widen the abdomen.

Drawing a Lobster: Segmented Body, Claws, and Antennae

Source rubric / reflection

- [ ] Body axis is present and divided into three zones with a stated ratio.
- [ ] Cephalothorax is centered on the axis and has a midline reference.
- [ ] Abdomen shows six tapering segment divisions using a consistent convention.
- [ ] Tail fan is centered and no wider than the abdomen's widest point.
- [ ] Two claws are present, each with two halves and a visible gap.
- [ ] Two antennae sweep forward and outward, longer than the claws.
- [ ] Four pairs of walking legs are placed along the lower cephalothorax.
- [ ] Paired appendages are checked for symmetry using the midline.
- [ ] Valid stylistic alternatives are accepted if segment and appendage construction remains clear.

Reflection: What did you check, what did you change, and what will you try next?