Draw a Reptile Body Outline: Scale and Limb Practice

Original tasks 1, 2, 3 / complete keys

Task 1

A learner uses a unit of 6 mm. Torso length is 5 units and torso width is 2.5 units. Calculate torso length and width in mm, and state the length-to-width ratio.

Answer: Length is 30 mm; width is 15 mm; ratio is 2.

Reason: Multiply each unit count by 6 mm. Then divide 30 by 15 to get 2.

Check: Reverse the calculation: 30 divided by 6 equals 5 units, and 15 divided by 6 equals 2.5 units.

Task 2

A body axis has front and rear limb attachment points 4 units apart on one side. Each limb is 1.5 units long. If the unit is 8 mm, give the attachment distance and limb length in mm, and the total of both limb lengths.

Answer: Attachment distance is 32 mm; each limb is 12 mm; both limbs total 24 mm.

Reason: Multiply 4 by 8 and 1.5 by 8. Then add 12 and 12.

Check: Divide 32 by 8 to recover 4 units, and 24 by 8 to recover 3 units total limb length.

Task 3

Scale marks are spaced by half a unit. The torso width is 3 units. How many gaps fit across the full width, and how many marks are needed if both ends are marked?

Answer: Six gaps fit; seven marks are needed.

Reason: Three units divided by half a unit equals 6 gaps. With a mark at both ends, marks equal gaps plus one.

Check: Count gaps between seven marks: six gaps. Multiply six by half a unit to recover 3 units.

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Original tasks 4 / complete keys

Task 4

A learner draws 4 scale rows on one side of the axis and 4 on the other. Each row has 6 marks. State the total row count and total marks, then explain one valid alternative mark style.

Answer: Total rows are 8; total marks are 48. A valid alternative is short strokes instead of dots, kept at the same spacing.

Reason: Add 4 and 4 for rows. Multiply 8 by 6 for marks. The convention allows different mark shapes if spacing and direction stay consistent.

Check: Divide 48 by 8 to recover 6 marks per row, and divide 8 by 2 to recover 4 rows per side.

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Source rubric / reflection

- [ ] Unit is measured and recorded once; all measurements use the same unit.
- [ ] Torso outline passes through the length and width marks and is symmetrical about the axis.
- [ ] Limb attachment points are level and limb lengths are consistent.
- [ ] Scale rows use one mark style with consistent spacing and direction.
- [ ] Arithmetic checks are shown and correct.
- [ ] Valid alternatives are accepted when the convention is followed consistently.

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