Draw a Stingray: Body Outline and Fin Shading

Original tasks 1, 2, 3 / complete keys

Task 1

Using a 10 cm horizontal body axis, place the widest fin point at 4 cm from the head end. Mark half-widths of 3 cm each side. State the total fin span and whether it exceeds the body length in the fin region.

Answer: Total fin span is 6 cm. It does not exceed the 10 cm body length, so the body would look too narrow; widen the half-widths.

Reason: Span equals two half-widths: 3 cm plus 3 cm equals 6 cm. Compare 6 cm with 10 cm; 6 is less than 10, so the flat-body proportion fails the check.

Check: Add the two half-widths and compare the sum with the body length using the same unit.

Task 2

A drawing has a fin span of 9 cm and a body length of 11 cm. The learner shades the fin edge darkest. Describe the corrected shading order from edge to midline.

Answer: Lightest at the fin edge, medium in the middle of the fin, darkest at the body midline.

Reason: The convention places the darkest tone at the midline to suggest thickness, so the edge must be lightest. A three-zone order makes the gradient checkable.

Check: Point to three zones on one fin and confirm the tone increases from edge to midline.

Task 3

A stingray outline has a tail base 2 cm to the right of the horizontal axis center on a 12 cm axis. State the correction and the new tail base position relative to the axis.

Answer: Move the tail base 2 cm left so it sits on the horizontal axis center.

Reason: The tail must be centered on the horizontal axis; an offset of 2 cm is corrected by moving it back by the same amount.

Check: Measure the distance from the tail base to the axis on both sides; both should read zero offset.

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Original tasks 4 / complete keys

Task 4

A learner uses three shading passes: light, medium, dark. They place the dark pass at the fin edge and the light pass at the midline. State the corrected pass order from edge to midline and one reason.

Answer: Light pass at the edge, medium pass in the middle, dark pass at the midline. Reason: the midline should be darkest to show fin thickness.

Reason: The convention defines density increasing toward the midline, so the three passes must be reversed from the learner's order.

Check: List the three pass labels in order from edge to midline and confirm they read light, medium, dark.

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Source rubric / reflection

- [ ] Body outline is symmetric about the vertical axis within about 5 mm (hypothetical tolerance) when measured with a ruler.
- [ ] Fin span is clearly greater than the head-to-tail-base body length in the fin region.
- [ ] Tail tapers smoothly and stays centered on the horizontal axis.
- [ ] Shading gradient runs from light at the fin edge to darker at the midline on both fins.
- [ ] Stroke direction is consistent or deliberately mirrored; valid alternatives are accepted.
- [ ] Final outline remains visible and construction lines are removed or faint.

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