Dragon Pen Drawing: Scale Hatching and Wing Texture

Original tasks 1, 2, 3 / complete keys

Task 1

A 20 mm wide scale band uses 2 mm strokes spaced 1.5 mm apart. How many strokes fit across the width if each stroke plus gap uses 3.5 mm?

Answer: Five strokes, with 2.5 mm left over.

Reason: Each stroke plus gap is 2 mm + 1.5 mm = 3.5 mm. 20 mm divided by 3.5 mm equals 5 full strokes (17.5 mm) with 2.5 mm remaining.

Check: Multiply 5 by 3.5 mm to get 17.5 mm, then add 2.5 mm to reach 20 mm.

Task 2

A wing leading edge is 30 mm long. You draw eight texture strokes whose start points are evenly distributed along the edge, with the first start point at 0 mm and the last start point at 30 mm. What is the spacing between adjacent start points?

Answer: About 4.29 mm between adjacent start points.

Reason: Eight start points create seven equal intervals along the 30 mm edge. 30 mm divided by 7 intervals equals about 4.29 mm per interval.

Check: Multiply 7 intervals by 4.29 mm to get about 30 mm, confirming the spacing covers the full edge.

Task 3

A dragon body is 40 mm tall, divided into three equal bands. The middle band uses 2 mm strokes spaced 1.5 mm apart. How many strokes fit across a 40 mm width if each stroke plus gap uses 3.5 mm?

Answer: Eleven strokes, with 1.5 mm left over.

Reason: Each stroke plus gap is 3.5 mm. 40 mm divided by 3.5 mm equals 11 full strokes (38.5 mm) with 1.5 mm remaining.

Check: Multiply 11 by 3.5 mm to get 38.5 mm, then add 1.5 mm to reach 40 mm.

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Original tasks 4 / complete keys

Task 4

A wing texture stroke is planned to run 8 mm from the leading edge and would otherwise end exactly at the body outline. You must stop the stroke 2 mm before the body outline to keep a clear gap. How long is the visible texture stroke?

Answer: Six mm of visible texture stroke.

Reason: The full planned stroke is 8 mm. Stopping 2 mm before the body outline removes the last 2 mm, so 8 mm minus 2 mm equals 6 mm of visible stroke.

Check: Add the 6 mm visible stroke and the 2 mm gap to get 8 mm, matching the planned stroke length.

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Source rubric / reflection

- [ ] Scale hatching strokes are short, curved, and follow the lower edge of imagined scales.
- [ ] Three scale bands show distinct spacing or stroke-length differences.
- [ ] Wing texture strokes radiate from the leading edge at roughly consistent intervals.
- [ ] A clear gap separates body scale hatching from wing texture.
- [ ] Outlines are continuous and thin except where the wing outline is intentionally thickened.
- [ ] Alternative stroke shapes are accepted if consistency and readability are maintained.

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