How to Draw Scales on a Dragon Face: Row-by-Row Guide

Original tasks 1, 2, 3 / complete keys

Task 1

A muzzle is 12 cm tall. You choose a row height of 2 cm. How many rows fit, and what offset do you use between rows?

Answer: Six rows fit. Offset each new row by about half a scale width from the row above.

Reason: Twelve divided by two equals six. The half-width offset prevents vertical seams and follows the row system.

Check: Recount the rows and verify each row is offset by roughly half a scale width.

Task 2

You draw a brow row with 8 scales. The next row should be offset by half a scale width. If each scale is 1 cm wide, how far is the offset?

Answer: The offset is 0.5 cm.

Reason: Half of a 1 cm scale width is 0.5 cm. This offset shifts the next row so scales sit between the ones above.

Check: Measure the horizontal shift between the first scale of each row; it should be about 0.5 cm.

Task 3

A face outline is 20 cm tall. The brow area is 4 cm tall and the muzzle is 10 cm tall. Using a 1 cm row height, how many rows cover the brow and muzzle together?

Answer: Fourteen rows total: 4 on the brow and 10 on the muzzle.

Reason: Four divided by one equals four brow rows; ten divided by one equals ten muzzle rows; four plus ten equals fourteen.

Check: Count rows in each area and add them; confirm the total is 14.

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Original tasks 4 / complete keys

Task 4

You choose a light direction from the upper right. A scale overlaps the one below it. Where do you place the shadow on the upper scale, and why?

Answer: Place a thin shadow along the lower edge of the upper scale, because the upper scale blocks light from reaching the lower one.

Reason: Overlap shadows indicate which scale sits on top. With light from the upper right, the lower edge of the overlapping scale receives less light.

Check: Check that all overlap shadows are on lower edges and agree with the upper-right light direction.

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Source rubric / reflection

- [ ] Rows are built from the brow downward with consistent overlap.
- [ ] Scale shape follows one defined convention throughout the face.
- [ ] Row height matches the recorded value within a small tolerance.
- [ ] Offsets alternate by about half a scale width.
- [ ] Overlap shadows agree with the chosen light direction.
- [ ] Brow rows curve around the eye socket; muzzle rows follow the bridge.
- [ ] Valid alternatives (rounder scales, different row height, different light direction) are accepted if consistency is maintained.

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