Compare Fur, Scale and Feather Texture Marks on Animal Surfaces

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

Task 1

In a 20 mm square, fur has 10 marks and feather has 14 marks at the same stroke length. Which is denser by count, and by how many marks?

Answer: Feather is denser by 4 marks.

Reason: 14 minus 10 equals 4. Counts use the same square size, so the comparison is valid.

Check: Recount both squares and subtract the smaller count from the larger.

Task 2

A scale panel uses offset rows with 6 scales in row one and 5 in row two. If the pattern repeats three times, how many scales are drawn?

Answer: 33 scales.

Reason: Each repeat has 6 plus 5 equals 11 scales. Three repeats give 11 times 3 equals 33.

Check: Count one repeat, multiply by three, and compare to a direct count.

Task 3

Feather barbs are stated at 30 degrees from the shaft. A drawn barb measures 45 degrees. Does it match the convention, and what is the difference?

Answer: No. The difference is 15 degrees.

Reason: 45 minus 30 equals 15. The drawn barb exceeds the stated angle.

Check: Measure the barb angle again against the shaft and subtract the stated value.

Task 4

Fur strokes are 8 mm long with 2 mm edge-to-edge spacing, so center-to-center spacing is 10 mm. In a 20 mm square, about how many strokes fit across one row if the first stroke starts at the left edge?

Answer: About 2 strokes per row.

Reason: Center-to-center spacing is 8 mm plus 2 mm equals 10 mm. 20 divided by 10 equals 2 positions, so about 2 strokes fit across one row. Overlap is not part of this convention, so no extra strokes are added.

Check: Measure center-to-center spacing on the paper, divide the 20 mm square width by it, and compare the result to a direct count of strokes whose centers lie in one row.

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Source rubric / reflection

- [ ] Convention sentence states direction, length and spacing for each texture.
- [ ] Direction arrow is present and matches stroke flow.
- [ ] Three density steps are countable in a 20 mm square.
- [ ] Marks are consistent with the stated convention.
- [ ] Comparison note uses counts, not impressions.
- [ ] Valid stylistic alternatives are accepted if convention is followed.

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