Owl Head Drawing: Facial Disk, Ear Tufts, and Beak Placement

Original tasks 1, 2, 3 / complete keys

Task 1

Use H = 8 cm. Draw a facial disk 6.4 cm wide and 7.2 cm high, centered on a vertical line. Mark three horizontal check pairs and state the expected equal distances at the widest point.

Answer: At the widest point, each side is 3.2 cm from the center line, so each pair should measure 3.2 cm left and 3.2 cm right.

Reason: Disk width is 0.8H = 6.4 cm; half-width is 3.2 cm. Symmetry means equal left and right distances at the same height.

Check: Measure from the center line to each arc at the widest height; both should read 3.2 cm within your chosen tolerance.

Task 2

With H = 12 cm, place ear tuft tips 3 cm above the head top. The left tip measures 3.2 cm and the right tip measures 2.7 cm. Are they within a 0.5 cm tolerance? What adjustment is needed?

Answer: The difference is 0.5 cm, so they are at the tolerance limit. Adjust one tip by 0.5 cm so both read 3.0 cm or within 0.5 cm of each other.

Reason: Tolerance is a chosen limit; here 0.5 cm. The measured difference equals the limit, so a small correction keeps the tufts mirrored.

Check: Re-measure both tips from the head top after adjustment and confirm the difference is 0.5 cm or less.

Task 3

Use H = 10 cm. Place the beak top at 0.55H and the tip at 0.7H. Give the two distances from the top of the head and the beak length.

Answer: Top is 5.5 cm and tip is 7.0 cm from the head top; beak length is 1.5 cm.

Reason: 0.55 times 10 cm is 5.5 cm; 0.7 times 10 cm is 7.0 cm; the difference is 1.5 cm.

Check: Measure from the head top to the beak top and tip; subtract to confirm 1.5 cm.

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Original tasks 4 / complete keys

Task 4

A facial disk is drawn 9 cm wide on a head with H = 10 cm. Is the width within the example ratio of 0.8H? If not, state the difference and one correction.

Answer: 0.8H is 8 cm, so 9 cm is 1 cm too wide. Reduce each side by 0.5 cm to reach 8 cm total width.

Reason: The example ratio gives 8 cm; the drawing exceeds it by 1 cm. Splitting the correction keeps symmetry.

Check: Measure total disk width and each half-width; after correction, total should be 8 cm and each side 4 cm.

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Source rubric / reflection

- [ ] Facial disk is a clear shallow heart or rounded shield with a soft lower point and is symmetric about the center line.
- [ ] Ear tufts each have a visible base on the head outline and a tip, and left and right tufts are mirrored in placement and length within the chosen tolerance.
- [ ] Beak is centered on the vertical center line, sits inside the disk, and uses the chosen fractions of H.
- [ ] Construction lines are consistent, units are stated once, and measurements are recorded.
- [ ] Valid alternatives such as rounded tufts or a wider disk are accepted if the structural checks pass.

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