Owl Face Drawing: Facial Disk, Beak, and Eye Symmetry

Original tasks 1, 2, 3 / complete keys

Task 1

Given a baseline at 0 cm, midline at 6 cm, and disk top at 12 cm, describe where to place the disk center and what outer radius to use.

Answer: Disk center is on the axis at 6 cm above baseline; outer radius is 6 cm.

Reason: The disk spans from baseline to top, so its center is halfway between 0 and 12 cm, and the radius is half the height.

Check: Verify center height plus radius equals 12 cm and center height minus radius equals 0 cm.

Task 2

An inner ring is set at 75 percent of an outer radius of 8 cm. What is the inner ring radius, and where is its center?

Answer: Inner ring radius is 6 cm; center is on the symmetry axis at the same height as the disk center.

Reason: 75 percent of 8 cm is 6 cm; concentric rings share the same center.

Check: Multiply 0.75 by 8 to confirm 6 cm, and confirm the center mark is on the axis.

Task 3

A beak triangle has top edge endpoints 1.5 cm left and 1.5 cm right of the axis at 7 cm height, and an apex on the axis at 5 cm height. Is the beak centered? Explain.

Answer: Yes, the beak is centered because both top edge endpoints are 1.5 cm from the axis and the apex lies on the axis.

Reason: Centering requires equal left and right distances for the top edge and the apex on the axis.

Check: Compare left and right distances (both 1.5 cm) and confirm the apex height is on the axis.

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Original tasks 4 / complete keys

Task 4

Eye centers are placed at 2.8 cm left and 3.2 cm right of the axis at the same height. Describe the symmetry issue and a simple fix.

Answer: The eye distances differ by 0.4 cm; adjust one eye so both are at the same distance, for example 3.0 cm each.

Reason: Symmetry requires equal distances from the axis at the same height; a small adjustment corrects the mismatch.

Check: Subtract the distances to find the difference (0.4 cm) and re-measure after adjustment to confirm equality.

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Source rubric / reflection

- [ ] Symmetry axis is straight and clearly marked.
- [ ] Outer facial disk boundary touches baseline and top mark and is centered on the axis.
- [ ] Ring guides are centered on the axis and labeled as construction guides.
- [ ] Beak triangle apex lies on the axis and top edge is centered between the eyes.
- [ ] Eye centers are at equal distances from the axis at the same height.
- [ ] Measurements and units are recorded and consistent.
- [ ] Valid stylistic alternatives are accepted if symmetry and disk structure remain clear.

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