Face Symmetry Drawing: Axis, Paired Features, and Proportion Checks

Original tasks 1, 2, 3 / complete keys

Task 1

A face height is 12 cm. The eye line is at 6 cm, the nose base at 8 cm, and the mouth line at 9 cm. The left eye center is 2.2 cm left of the axis. What is the right eye center distance, and what is the total distance between the eye centers?

Answer: Right eye center: 2.2 cm right of the axis. Total distance between eye centers: 4.4 cm.

Reason: Symmetry requires equal distances from the axis. The right center mirrors the left at 2.2 cm. The total is 2.2 + 2.2 = 4.4 cm.

Check: Measure both centers from the axis with a ruler; each should read 2.2 cm, and the sum should be 4.4 cm.

Task 2

The left nostril is 1.1 cm left of the axis and the right nostril is 1.4 cm right. By how much should each center move to become symmetric, and what is the new common distance?

Answer: Each center moves 0.15 cm toward the common value. The new common distance is 1.25 cm from the axis.

Reason: The difference is 1.4 - 1.1 = 0.3 cm. Half the difference is 0.15 cm. Add 0.15 to 1.1 and subtract 0.15 from 1.4 to reach 1.25 cm on both sides.

Check: Re-measure both nostrils after adjustment; both should read 1.25 cm from the axis, and the total distance should be 2.5 cm.

Task 3

A drawing has the left mouth corner at 1.6 cm left of the axis on the 7.5 cm guide, but the right mouth corner is at 1.6 cm right on the 7.8 cm guide. Describe the correction needed and state the final measured values.

Answer: Move the right mouth corner down to the 7.5 cm guide while keeping its 1.6 cm distance from the axis. Final values: left corner 1.6 cm left at 7.5 cm; right corner 1.6 cm right at 7.5 cm.

Reason: The horizontal distances already match, so only the height needs correction. Both corners must sit on the same guide line for a symmetric pair.

Check: Measure each corner's distance from the axis and its height from the top mark; both distances should be 1.6 cm and both heights 7.5 cm.

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Original tasks 4 / complete keys

Task 4

On a 14 cm face, the eye line is at 7 cm. The left eye center is 2.5 cm left of the axis, and the right eye center is 2.1 cm right. Find the difference, the adjustment per side, and the new common distance. Then state the total distance between the corrected eye centers.

Answer: Difference: 0.4 cm. Adjustment per side: 0.2 cm. New common distance: 2.3 cm from the axis. Total distance between corrected eye centers: 4.6 cm.

Reason: Subtract 2.1 from 2.5 to get 0.4 cm. Half is 0.2 cm. Move the left center inward to 2.3 cm and the right center outward to 2.3 cm. The total is 2.3 + 2.3 = 4.6 cm.

Check: Measure both eye centers from the axis after adjustment; each should read 2.3 cm, and the sum should be 4.6 cm. Confirm both centers remain on the 7 cm eye line.

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Source rubric / reflection

- [ ] Axis is a clear vertical line and remains visible for checking.
- [ ] Each paired feature center is measured from the axis and recorded.
- [ ] Paired feature centers are equidistant from the axis within the chosen tolerance.
- [ ] Paired features share the same horizontal height guide.
- [ ] The mirror half is completed using measured distances, not guessed placement.
- [ ] Valid alternative line weights and feature shapes are accepted when measured centers match.

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