Shoulder Perspective Drawing: Foreshortened Arm Construction

Original tasks 1, 2, 3 / complete keys

Task 1

An arm box has a near-end width of six units and a far-end width of four units. What is the taper?

Answer: Two units.

Reason: Subtract the far-end width from the near-end width: six minus four equals two.

Check: Re-measure both widths with the same x-height unit and confirm the subtraction.

Task 2

A compressed shoulder-to-elbow distance is eight units and the side guide shows twelve units. Simplify the foreshortening ratio.

Answer: Two to three.

Reason: The ratio is eight to twelve; divide both numbers by four to simplify to two to three.

Check: Multiply two and three by four to recover eight and twelve.

Task 3

A drawing uses a five-unit shoulder-guide width and a four-unit arm-box near-end width. Describe one visible joint-overlap check you would make.

Answer: Confirm the arm box's near end crosses the torso outline by at least one unit and label the crossing edge.

Reason: The one-unit difference between five and four gives a measurable overlap target; the label makes the overlap intentional.

Check: Measure the crossing distance with the same unit and compare it to the one-unit difference.

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Original tasks 4 / complete keys

Task 4

A student changes the measuring symbol's x-height from eight millimeters to ten millimeters midway through the drawing. What problem does this create and how can it be fixed?

Answer: It breaks unit consistency, so proportion checks no longer compare like with like. Fix it by returning to the original eight-millimeter unit and re-measuring the affected distances.

Reason: All checks depend on one baseline-to-midline distance; changing it midway invalidates subtraction and ratio comparisons.

Check: Re-stack the original unit five times, confirm the total, and re-measure three key distances.

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Source rubric / reflection

- [ ] Shoulder angle is readable from the front and side guides.
- [ ] Arm box shows clear foreshortening through compression and taper.
- [ ] Joint overlap is visible where the upper arm meets the torso.
- [ ] All proportion checks use one consistent x-height unit.
- [ ] Taper and foreshortening arithmetic are recorded and correct.
- [ ] Valid alternative shoulder shapes are accepted if the construction logic holds.

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