Compression Drawing: Foreshortened Limbs in a Crouched Pose

Original tasks 1, 2, 3 / complete keys

Task 1

A crouched figure has an upper arm of 8 cm on paper. Using the example ratio, calculate the visible forearm length and state the near-end width if the far end is 2 cm wide.

Answer: Visible forearm = 0.40 x 8 cm = 3.2 cm. Near-end width = 1.5 x 2 cm = 3 cm.

Reason: Apply the stated hypothetical ratios: forearm length is 40 percent of upper-arm length, and near-end width is 1.5 times far-end width.

Check: Recompute 0.40 x 8 and 1.5 x 2 with a calculator; confirm units are centimetres.

Task 2

A pose plate shows a knee angle of 75 degrees and an elbow angle of 90 degrees. In your redraw, you measure a knee angle of 70 degrees. Is the redraw within a 10-degree tolerance? Show the arithmetic.

Answer: Difference = 75 - 70 = 5 degrees, which is within the 10-degree tolerance.

Reason: Subtract the measured angle from the reference angle and compare the absolute difference to the tolerance.

Check: Measure again with the protractor and confirm the subtraction: 75 minus 70 equals 5.

Task 3

Describe the overlap order for a crouched pose where the near forearm crosses the far thigh and the near lower leg crosses the far lower leg. Which limb is drawn last in each pair?

Answer: Near forearm is drawn after the far thigh; near lower leg is drawn after the far lower leg. The nearest limb in each pair is drawn last.

Reason: Overlap order follows depth: the limb closer to the viewer is drawn last so its outline crosses in front.

Check: Trace each crossing on your drawing and confirm the nearer limb's outline is unbroken.

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Original tasks 4 / complete keys

Task 4

A torso is tilted 30 degrees from vertical in your redraw but 35 degrees in the reference. Calculate the difference and state whether a 5-degree tolerance is met.

Answer: Difference = 35 - 30 = 5 degrees, so the 5-degree tolerance is met exactly.

Reason: Subtract the smaller angle from the larger and compare to the stated tolerance.

Check: Re-measure the torso tilt against vertical and confirm 35 minus 30 equals 5.

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Source rubric / reflection

- [ ] Torso is tilted forward and the figure reads as crouched, not standing.
- [ ] Near forearm is visibly shorter and wider than the upper arm.
- [ ] Overlap order is consistent: nearest limb drawn last and crossing in front.
- [ ] Joint angles are annotated in degrees and match the chosen reference within a stated tolerance.
- [ ] Independent redraw preserves foreshortening and overlap logic; valid alternatives are accepted.

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