Cross-Contour Hand Drawing: Wrap Lines Around Knuckles and Fingers

Original tasks 1, 2, 3 / complete keys

Task 1

A reference shows a middle finger about 80 mm long. You plan five wraps. Calculate the average gap in millimetres and state one place where you would tighten the spacing.

Answer: Average gap = 80 mm ÷ 5 = 16 mm. Tighten spacing near the fingertip where the finger narrows.

Reason: Dividing total visible length by the number of wraps gives an average gap; curvature near a narrowing requires closer wraps.

Check: Confirm the division is correct and that the tightened location matches a narrowing on the described finger.

Task 2

Describe how you would draw a wrap over a rounded knuckle so that it reads as wrapping the form, and state where the line starts and ends.

Answer: Start at one side edge, bend the line over the rounded top, and end at the opposite side edge, keeping the curve smooth and stopping at the silhouette.

Reason: A knuckle is rounded, so a wrap must follow the top curve and terminate at the visible edges to read as a surface line.

Check: Trace the described line: it should begin and end at edges and bend over the top rather than cutting straight across.

Task 3

A student draws four wraps on a finger with equal 15 mm gaps, but the finger narrows sharply near the tip. Identify the problem and give a fix using simple arithmetic.

Answer: Equal spacing ignores the narrowing. Fix by keeping the total length the same but redistributing gaps: for a 60 mm finger with four wraps, the average is 15 mm, but make the tip gap smaller, for example 10 mm, and widen the others to about 16–17 mm so the total remains 60 mm.

Reason: Spacing should communicate turning; tighter gaps belong where the form turns away quickly.

Check: Add the adjusted gaps and confirm they total the finger length; check that the smallest gap is near the narrowing.

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Original tasks 4 / complete keys

Task 4

You have drawn a hand with wraps that stop in the middle of two fingers. State the rule violated and describe the correction for each finger.

Answer: The rule is that visible wraps must start and end at a silhouette edge. Correction: extend each incomplete wrap to the nearest edge on both sides, or erase it and redraw it from edge to edge.

Reason: A wrap represents a band crossing the visible surface, so it must terminate where the surface meets the silhouette.

Check: Inspect each wrap and confirm both endpoints lie on an edge; redraw any that do not.

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Source rubric / reflection

- [ ] Each wrap starts and ends at a silhouette edge.
- [ ] Wraps curve to match the local form rather than running straight across.
- [ ] Spacing changes with turning: tighter where the surface turns away, wider on flatter areas.
- [ ] Knuckle wraps bend over the rounded top and stop at the sides.
- [ ] The hand remains readable and the wrapping logic is consistent.
- [ ] Valid alternative line styles and handwriting are accepted if the wrapping logic holds.

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