Armour Drawing: Helmet, Chest and Limb Outlines

Original tasks 1, 2, 3 / complete keys

Task 1

A helmet outline has a baseline at 0 units and a midline at 5 units. A chest plate has a baseline at 0 units and a midline at 5 units. A limb outline has a baseline at 0 units and a midline at 2 units. Are the helmet and chest plate at the same x-height? Explain.

Answer: Yes. Both have an x-height of 5 units because 5 minus 0 equals 5 for each.

Reason: X-height is midline minus baseline. For the helmet, 5 - 0 = 5. For the chest plate, 5 - 0 = 5. The limb outline is different: 2 - 0 = 2.

Check: Re-measure each baseline and midline on the drawing and subtract; confirm the two results are equal.

Task 2

A chest plate has a neck edge at 8 units and a shoulder edge at 6 units. A limb outline has a top edge at 6 units. If the limb is placed beside the chest plate, which edges can meet, and what is the difference in units?

Answer: The limb top edge at 6 units can meet the chest shoulder edge at 6 units. The difference is 0 units.

Reason: Compare the labelled edge heights. The shoulder edge is at 6 and the limb top edge is at 6, so they align. The neck edge at 8 is not used for this join.

Check: Measure both edge heights from the same baseline and subtract; a result of 0 means they align.

Task 3

A student draws a helmet with an outer boundary and a face opening, but the outer boundary is open at the neck edge. The student also labels the crown line. List two fixes that keep the part boundaries clear.

Answer: Close the outer boundary at the neck edge and keep the neck edge label. Then check that the face opening is a separate closed shape.

Reason: The convention requires closed outlines and labelled boundaries. An open neck edge breaks the outer boundary, so it must be closed. The face opening must also be closed and separate.

Check: Trace the outer boundary with a pencil; it should return to its start. Confirm the face opening is closed and both labels are present.

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Original tasks 4 / complete keys

Task 4

In an assembly frame, the helmet neck edge is at 7 units and the chest plate neck edge is at 5 units. The student says the parts are aligned. Is this correct? Give the difference and one adjustment.

Answer: No. The difference is 2 units. Move the helmet down by 2 units, or redraw it in its own zone so its neck edge is at 5 units, then place it again.

Reason: Aligned neck edges must have the same height from the same baseline. 7 minus 5 equals 2, so the helmet is 2 units too high.

Check: Measure both neck edges from the assembly frame baseline and subtract; adjust until the difference is 0.

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Source rubric / reflection

- [ ] Three separate part outlines are present: helmet, chest plate and limb outlines.
- [ ] Every outline is closed and every boundary is labelled.
- [ ] One working unit is used and x-heights are recorded.
- [ ] The assembly frame contains the same parts at the same scale.
- [ ] Neck edges and shoulder edges are aligned using baseline and midline.
- [ ] Valid alternative styles and optional details are accepted if construction rules are met.

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