Upside-Down Hat Drawing: Orientation Practice

Original tasks 1, 2, 3 / complete keys

Task 1

Draw an upside-down hat with a brim band 1.5 cm tall and a crown 4 cm tall below it. The crown's wider side is 5 cm and touches the brim; the narrower side is 3 cm and points down. State the total height.

Answer: Total height is 1.5 cm + 4 cm = 5.5 cm. The brim is above the crown, and the crown points down.

Reason: Add the brim band height and crown height. Check that the wider crown side touches the brim and the narrower side points downward.

Check: Measure the brim band and crown in centimeters; confirm the outer brim edge is the topmost line and the crown's lowest point is below the brim.

Task 2

A drawing has the crown above the brim and the outer brim edge below the inner brim edge. Describe two changes to make it a valid upside-down hat.

Answer: Move the crown below the brim, and swap the brim lines so the outer edge is above the inner edge.

Reason: The orientation convention requires the brim above the crown and the outer brim edge above the inner edge.

Check: After changes, verify brim above crown, crown pointing down, and outer brim edge above inner brim edge.

Task 3

Using a crown guide 6 cm wide at the top and 4 cm wide at the bottom, 5 cm tall, draw an upside-down hat with a 2 cm brim band. State which side of the crown touches the brim.

Answer: The 6 cm wider side touches the brim; the 4 cm narrower side points down. Total height is 2 cm + 5 cm = 7 cm.

Reason: For an inverted hat, the wider crown side attaches to the brim and the narrower side points downward.

Check: Measure the crown's top and bottom widths and the total height; confirm the wider side is at the brim.

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Original tasks 4 / complete keys

Task 4

In a blank frame, draw an upside-down hat with a curved brim. The brim band is 1 cm tall at its center and the crown is 3 cm tall. Explain why a curved brim can still be valid.

Answer: A curved brim is valid if the outer edge remains above the inner edge and the crown points downward. Total height at the center is 1 cm + 3 cm = 4 cm.

Reason: The convention allows valid alternatives; orientation cues matter more than a perfectly straight brim.

Check: Check the outer brim edge is above the inner edge along the curve, and measure the center brim band and crown heights.

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Source rubric / reflection

- [ ] Brim is above the crown.
- [ ] Crown points downward.
- [ ] Outer brim edge is above the inner brim edge.
- [ ] Brim band height is consistent and measured in centimeters.
- [ ] Crown's wider side touches the brim and narrower side points down.
- [ ] Valid alternatives are accepted if the orientation check passes.

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