Draw an Upside-Down Hard Hat: Inverted Brim and Ridge

EXERCISE 1 / DRAW AND RECORD

Describe how to adjust a drawing where the floor ellipse is 8 cm wide and 3 cm tall, but the bowl is 7 cm high. What change makes the hat look more like a hard hat?

Use scale 1:2 for the stated centimetres; keep the 3 cm floor-ellipse height distinct from H. Record both task dimensions and the paper measurements of your chosen correction.

Empty drawing area / add your own construction, correction and labels

My chosen floor width W: _____ cm; front-shell height H: _____ cm.

Measured paper width: _____ cm; measured paper H: _____ cm.

My proposed change and numerical check: _____

- ☐ I answered the requested task and labeled my choices.
- ☐ I used the same view and measurement convention throughout.
- ☐ I checked the result and recorded one reason or measurement.

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EXERCISE 2 / DRAW AND RECORD

A drawing shows the brim as a single flat line across the top of the bowl. Explain why this is incorrect and describe the correct construction.

This task has no numerical size requirement. Choose a consistent view and drawing scale that fit the empty area, and label your choices. Consult the separate reference plate if needed; the drawing and response fields here are intentionally blank.

Empty drawing area / add your own construction, correction and labels

What is missing from the given single-line brim? _____

My replacement construction: _____

How I checked that it meets the shell: _____

- ☐ I answered the requested task and labeled my choices.
- ☐ I used the same view and measurement convention throughout.
- ☐ I checked the result and recorded one reason or measurement.

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EXERCISE 3 / DRAW AND RECORD

You are drawing the interior ridge. Where should it start and end, and how should it curve?

This task has no numerical size requirement. Choose a consistent view and drawing scale that fit the empty area, and label your choices. Consult the separate reference plate if needed; the drawing and response fields here are intentionally blank.

Empty drawing area / add your own construction, correction and labels

Ridge start point: _____; ridge end point: _____

How I chose the path between them: _____

My endpoint and containment check: _____

- ☐ I answered the requested task and labeled my choices.
- ☐ I used the same view and measurement convention throughout.
- ☐ I checked the result and recorded one reason or measurement.

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EXERCISE 4 / DRAW AND RECORD

A student shades the entire hat evenly, including the interior. What is one fix to make the inversion clearer?

This task has no numerical size requirement. Choose a consistent view and drawing scale that fit the empty area, and label your choices. Consult the separate reference plate if needed; the drawing and response fields here are intentionally blank.

Empty drawing area / add your own construction, correction and labels

One change to the even shading: _____

Interior choice: _____; exterior choice: _____; brim choice: _____

Why the change makes the inverted view clearer: _____

- ☐ I answered the requested task and labeled my choices.
- ☐ I used the same view and measurement convention throughout.
- ☐ I checked the result and recorded one reason or measurement.