Draw a Cylindrical Can with Pull-Tab and Label

Original tasks 1, 2 / complete keys

Task 1

Draw a front view of a can with width 4 units and height 8 units. Add a top-rim ellipse 3.5 units wide and a pull-tab toward the front edge. State that the numbers are hypothetical.

Answer: A front-view can with vertical sides 8 units tall and 4 units wide. Top arc curves upward, bottom arc curves downward, both symmetric. Rim ellipse 3.5 units wide, centered, leaving a 0.25-unit rim on each side. Pull-tab overlaps the rim line toward the front edge. Numbers are hypothetical examples.

Reason: The height-to-width ratio is 2:1, matching the worked example's proportion. The rim ellipse is smaller than the outer width by 0.5 units total, so 0.25 units per side. The tab overlaps the rim to show attachment.

Check: Measure the drawn width and height in the same units; confirm the ratio is 2:1. Check that the rim ellipse is centered and that the tab overlaps the rim line.

Task 2

Draw an angled view of a can with width 6 units and height 12 units. Make the top and bottom arcs fuller ellipses and keep the sides vertical. Add a label with curved top and bottom edges and vertical side edges.

Answer: An angled-view can with vertical sides 12 units tall and 6 units wide. Top and bottom are fuller ellipses, symmetric about the centerline. Label has curved top and bottom edges and vertical side edges. Numbers are hypothetical examples.

Reason: In an angled view, the ellipse's minor axis is vertical and its height is about one-third of its width for a gentle tilt. The sides stay vertical, and the label edges follow the can's curvature.

Check: Confirm the sides are vertical and the top and bottom ellipses are symmetric. Check that the label's side edges are vertical and its top and bottom edges curve in the same direction as the can's arcs.

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Original tasks 3, 4 / complete keys

Task 3

Draw a front view of a can with width 5 units and height 10 units. Add a top-rim ellipse 4 units wide and a pull-tab with a ring. Add a label with simple lettering between baseline and midline. State that the numbers are hypothetical.

Answer: A front-view can with vertical sides 10 units tall and 5 units wide. Top and bottom arcs symmetric. Rim ellipse 4 units wide, centered, leaving a 0.5-unit rim on each side. Pull-tab with ring overlaps the rim. Label has arcs and vertical side edges, with lettering between baseline and midline. Numbers are hypothetical examples.

Reason: The ratio is 2:1. The rim ellipse is 1 unit smaller than the outer width, so 0.5 units per side. The lettering convention keeps lowercase letters between baseline and midline.

Check: Measure width and height in the same units and check the 2:1 ratio. Confirm the rim ellipse is centered and the lettering stays between baseline and midline.

Task 4

Draw a front view of a can with width 3 units and height 6 units. Add a top-rim ellipse 2.5 units wide and a pull-tab toward the front edge. Add a label whose top and bottom arcs curve in the same direction as the can's arcs. State that the numbers are hypothetical.

Answer: A front-view can with vertical sides 6 units tall and 3 units wide. Top and bottom arcs symmetric. Rim ellipse 2.5 units wide, centered, leaving a 0.25-unit rim on each side. Pull-tab overlaps the rim toward the front edge. Label arcs curve in the same direction as the can's arcs. Numbers are hypothetical examples.

Reason: The ratio is 2:1. The rim ellipse is 0.5 units smaller than the outer width, so 0.25 units per side. The label arcs follow the can's curvature.

Check: Measure width and height in the same units and check the 2:1 ratio. Confirm the rim ellipse is centered and the label arcs curve in the same direction as the can's top and bottom arcs.

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Source rubric / reflection

- [ ] Vertical sides are parallel and the can's width and height use the same units.
- [ ] Top and bottom arcs are smooth and symmetric about the centerline.
- [ ] Top-rim ellipse is centered and slightly smaller than the outer width.
- [ ] Pull-tab overlaps the rim line and reads as attached.
- [ ] Label top and bottom edges curve with the can; side edges are vertical.
- [ ] Lettering uses a baseline-to-midline x-height convention and a consistent style.
- [ ] Any numerical values are labeled as hypothetical examples.

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