Draw Test Tubes with Rim Ellipses and Liquid Levels

Original task 1 / independent drawing and calculation

Task 1

Draw a test tube 8 cm tall and 2 cm wide with a liquid level 5 cm from the bottom curve start. Use rim ellipse major axis 2 cm, minor axis 0.6 cm; liquid surface ellipse major axis 2 cm, minor axis 0.3 cm. No rack.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

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Original task 2 / independent drawing and calculation

Task 2

Draw a test tube 12 cm tall and 3 cm wide with a liquid level 7 cm from the bottom curve start. Scale the rim ellipse to major axis 3 cm and minor axis 0.9 cm; liquid surface ellipse major axis 3 cm and minor axis 0.45 cm. Place it in a rack bar 10 cm wide and 1 cm tall.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

Draw Test Tubes with Rim Ellipses and Liquid Levels

Original task 3 / independent drawing and calculation

Task 3

A test tube is 10 cm tall and 2 cm wide. The liquid level is 4 cm from the bottom curve start. Draw the tube and liquid level using the convention. Then state the empty space above the liquid.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

Draw Test Tubes with Rim Ellipses and Liquid Levels

Original task 4 / independent drawing and calculation

Task 4

Draw two test tubes side by side in a rack bar 12 cm wide and 1 cm tall. Each tube is 9 cm tall and 2 cm wide, with liquid levels 6 cm from the bottom curve start. Use the convention for rim and liquid ellipses. Space the tubes 4 cm apart center to center.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

Full drawing sheet / reusable blank workspace

Reusable full drawing sheet for Tasks 1 to 4. Print another copy when needed. Keep all original task measurements; if a task specifies larger paper, use that paper size.