Draw a Glass of Water: Rim Ellipse, Refraction Line, and Cast Shadow

Original task 1 / independent drawing and calculation

Task 1

Draw a glass 12 cm tall with a 7 cm rim and water 5 cm above the base. Light from the upper right. Use the rim ellipse convention and place the cast shadow.

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 a Glass of Water: Rim Ellipse, Refraction Line, and Cast Shadow

Original task 2 / independent drawing and calculation

Task 2

Draw a glass 9 cm tall with a 5 cm rim and water 3 cm above the base. Light from the left. Add one short offset line inside the glass to suggest refraction.

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 3 / independent drawing and calculation

Task 3

Draw a glass 15 cm tall with an 8 cm rim and water 7 cm above the base. Light from the upper left. Make the cast shadow darkest at the base.

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 a Glass of Water: Rim Ellipse, Refraction Line, and Cast Shadow

Original task 4 / independent drawing and calculation

Task 4

Draw a glass 10 cm tall with a 6 cm rim and water 4 cm above the base. Light from the right. Use a flatter rim ellipse than the worked example and justify it.

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.