Draw Mercury: Crater Placement and Tonal Shading Steps

Original task 1 / independent drawing and calculation

Task 1

Draw a Mercury circle 8 cm across with light from the upper left. Place three craters: one large near the center, one medium at upper left, and one small at lower right. Draw the terminator and shade in two layers. Record the circle diameter and the long axis of the large crater.

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

A student draws a Mercury circle 12 cm across with light from the upper right. They draw a straight vertical terminator line down the middle and shade the entire right half uniformly dark. List two specific fixes and state one measurement they should record.

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 Mercury circle 9 cm across with light from the upper left. Place four craters: two in the lit area, one near the center, and one in the shadow area. Draw the terminator and shade in three layers. Then measure the distance from the center crater to the terminator curve and record 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.

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Original task 4 / independent drawing and calculation

Task 4

A student draws a Mercury circle 10 cm across with light from the upper left. They place a crater exactly on the terminator curve and shade the shadow side with one dark tone. They claim the drawing is complete. Identify two problems and describe how to revise the drawing using the convention.

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.