Pencil Water: Ripples and Reflections

Original tasks 1, 2, 3 / complete keys

Task 1

Calm water: draw five horizontal reflection bands across a 10 cm wide water area. Use one x-height unit of 1 cm. Space bands evenly and shade with two tonal steps.

Answer: Five bands spaced 2 cm apart across 10 cm, using light and mid tones only.

Reason: 10 cm divided by five bands gives 2 cm average spacing, which is two x-height units. Calm water needs long unbroken bands and limited tone range.

Check: Count bands and measure total width. Divide width by band count and compare with the x-height unit. Confirm only two tones are used.

Task 2

Rippled water: place a disturbance at the center of a 12 cm row. Draw four ellipses with spacing increasing by half an x-height each time, starting at 1 cm. State the spacing sequence.

Answer: Spacing sequence: 1 cm, 1.5 cm, 2 cm, 2.5 cm.

Reason: Each step adds half of the 1 cm x-height unit. The sequence is checkable by simple addition.

Check: Add the spacings: 1 + 1.5 + 2 + 2.5 = 7 cm. Confirm each step increases by 0.5 cm and that ellipses are wider than tall.

Task 3

Reflection break: a vertical post reflection is 8 cm tall and 2 cm wide. Break it with three light gaps of 0.5 cm each. What total dark band length remains?

Answer: 6.5 cm of dark band length remains.

Reason: Three gaps of 0.5 cm total 1.5 cm. Subtract from 8 cm to get 6.5 cm.

Check: Multiply gap count by gap width, then subtract from total height. Confirm units are consistent in centimeters.

Pencil Water: Ripples and Reflections

Original tasks 4 / complete keys

Task 4

Tone check: a water area has light, mid, and dark bands in ratio 2:3:1 across a 12 cm width. Find the width of each tone band.

Answer: Light 4 cm, mid 6 cm, dark 2 cm.

Reason: Total ratio parts are 2 + 3 + 1 = 6. Divide 12 cm by 6 to get 2 cm per part. Multiply each ratio by 2 cm.

Check: Add the three widths: 4 + 6 + 2 = 12 cm. Confirm the ratio 2:3:1 holds.

Pencil Water: Ripples and Reflections

Source rubric / reflection

- [ ] Ripple ellipses are flattened and spaced consistently using a stated x-height convention.
- [ ] Three tonal steps are visible and assigned to distinct bands.
- [ ] Reflections are broken into vertical bands with at least one sharp break.
- [ ] Spacing increases away from the disturbance point.
- [ ] Valid alternative conventions are accepted if spacing and tone remain consistent and checkable.

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