Draw a Flower with Cross-Contour Lines: Surface Wrapping Guide

Original tasks 1, 2, 3 / complete keys

Task 1

A petal is 30 mm long and 15 mm wide, narrowing to 8 mm at the base. Plan three cross-contour lines and state the approximate gap sizes in the wide and narrow sections.

Answer: Three lines create four gaps. In the wide 15 mm section, gaps of about 4 mm are even. Near the 8 mm base, gaps of about 2 mm are even. Lines cross the long axis at right angles and bow consistently toward the tip or base.

Reason: Divide the wide width by four gaps to get about 4 mm; divide the narrow width by four to get about 2 mm. The count stays three lines, but spacing shrinks where the form narrows.

Check: Count lines and gaps; confirm no gap is more than twice another in the same section and every line end meets the outline.

Task 2

A stem is 6 mm wide and 60 mm long. Plan five cross-contour arcs and state their spacing along the stem.

Answer: Five arcs create six intervals along 60 mm, so spacing is about 10 mm. Each arc crosses the stem width and curves gently. At a bend, rotate the arc to stay perpendicular to the local stem direction.

Reason: 60 mm divided by six intervals equals 10 mm. Five arcs are enough to show the cylinder without crowding.

Check: Measure intervals along the stem, not across the page; confirm each arc begins and ends on the stem outline.

Task 3

A petal cups downward. State how its cross-contour lines should bow and give one check that distinguishes this from an upward-cupping petal.

Answer: Lines bow toward the base. Check: compare the middle of each line to a straight line between its endpoints; the middle should sit closer to the base than the endpoints do.

Reason: The surface bulge determines bow direction. A downward cup means the visible surface dips toward the base, so the line's middle follows that dip.

Check: Draw a faint straight chord between line endpoints and compare the midpoint offset; repeat on two lines to confirm consistency.

Draw a Flower with Cross-Contour Lines: Surface Wrapping Guide

Original tasks 4 / complete keys

Task 4

A student draws cross-contour lines parallel to a petal's long axis. State the error and give a two-step correction using the convention.

Answer: The lines do not wrap the surface. Correction: mark the long axis, then redraw each line to cross that axis at roughly right angles and curve it to follow the petal's bulge, ending on the outline.

Reason: Cross-contour lines must cross the form's axis to describe surface curvature; parallel lines describe length, not roundness.

Check: For each line, confirm it intersects the marked axis and that both ends touch the outline.

Draw a Flower with Cross-Contour Lines: Surface Wrapping Guide

Source rubric / reflection

- [ ] Outline is present and cross-contour lines are distinguishable from it.
- [ ] Every cross-contour line crosses the form's long axis at roughly right angles.
- [ ] Line ends meet the outline on petals and stem.
- [ ] Curvature is consistent within each petal and within the stem.
- [ ] Spacing is even except where the form narrows, and narrowing is handled deliberately.
- [ ] No shading, veins, or botanical detail is added.
- [ ] The chosen convention is stated, and valid alternatives are accepted if they meet the wrapping logic.

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