Pencil Baseball Drawing: Seam Curves and Shading

Original tasks 1, 2, 3 / complete keys

Task 1

On a 12 cm circle with light from the upper right, draw two seam arcs and describe where each arc crosses the vertical midline. Use hypothetical example values.

Answer: First arc bows upward and crosses the vertical midline about 4 cm above the horizontal midline; second arc bows downward and crosses about 3 cm below the horizontal midline. Light zone is upper right; darker zone is lower left.

Reason: The 12 cm diameter gives a 6 cm midline position. The example crossings are chosen as simple fractions of the radius and are labeled hypothetical. The light direction determines the tone zones.

Check: Measure the circle diameter, confirm the midline position, and squint to check that the lightest zone is upper right and the darkest zone is lower left.

Task 2

A learner draws two seam arcs that cross near the center. State the mistake and give a correction using the convention.

Answer: Mistake: the arcs cross. Correction: redraw the second arc offset below the first so each arc starts near one outline, bows toward the center, and exits near the opposite outline without crossing.

Reason: The convention requires two offset arcs that do not overlap. Crossing breaks the start-bow-exit pattern.

Check: Trace each arc with a finger from start to exit and confirm the two paths never meet.

Task 3

Describe a shading plan for a 10 cm baseball with light from the left. Include three tone zones and one arithmetic check.

Answer: Light zone on the left about 3 cm wide; medium transition band through the middle about 4 cm wide; darker zone on the right about 3 cm wide. Arithmetic check: 3 + 4 + 3 = 10 cm across the diameter. Values are hypothetical examples.

Reason: Three zones map to the curved surface and the chosen light direction. The widths sum to the diameter as a simple consistency check.

Check: Measure the zone widths across the horizontal midline and confirm they sum to the measured diameter.

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Original tasks 4 / complete keys

Task 4

After shading, the seam lines are faint. Give one fix and one check method.

Answer: Fix: redraw the seam lines lightly with a sharp pencil tip, or erase a thin line along each seam. Check: view the drawing from about one meter away and confirm both seams are still visible against the shaded sphere.

Reason: Shading can cover thin lines; redrawing or erasing restores contrast without changing the seam convention.

Check: Compare the seam visibility before and after the fix at the same viewing distance.

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Source rubric / reflection

- [ ] Sphere outline is smooth and closed.
- [ ] Two seam arcs follow the start-bow-exit convention and do not cross.
- [ ] Seam arcs stay inside the outline and are visibly continuous.
- [ ] Shading shows one light zone, one transition band, and one darker zone consistent with a single light direction.
- [ ] Seam lines remain visible after shading.
- [ ] Valid alternative arc curvatures and letter styles are accepted; x-height is baseline to midline.

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