Pencil Moon Drawing: Crater Shading and Phase Steps

Original tasks 1, 2, 3 / complete keys

Task 1

Draw a full moon disc with four craters. Use a light direction from the upper left. Shade the disc with steps 1 to 3 and give each crater a shadow on its lower-right side.

Answer: A circular disc evenly lit with gentle shading, four craters with dark lower-right interiors and light upper-left rims, and no hard terminator at the edge.

Reason: A full moon has the terminator at the disc edge, so shading stays soft. Crater shadows must point away from the upper-left light, which means lower-right.

Check: Confirm every crater shadow points lower-right and that the disc has no strong dark band at the edge.

Task 2

Draw a crescent moon with the lit sliver on the left. Place two craters near the terminator and shade them to step 4. Keep the sliver at step 1.

Answer: A thin lit crescent on the left, a soft terminator on the right side of the sliver, and two craters near that terminator with dark step 4 shadows pointing right.

Reason: Near the terminator, crater shadows lengthen and darken. The lit sliver stays bright, so contrast is high.

Check: Check that the sliver is the lightest area and that both crater shadows point away from the left light source.

Task 3

Draw a gibbous moon with light from the right. Use three craters in the same positions as your full moon drawing. Deepen only the crater nearest the shadowed left edge to step 4.

Answer: A mostly lit disc with a soft shadowed edge on the left, three craters with shadows pointing left, and only the leftmost crater at step 4.

Reason: In a gibbous phase most craters are on the lit side and stay subtle; only those near the terminator darken.

Check: Verify that crater positions match the full moon layout and that only the crater near the shadowed edge reaches step 4.

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Original tasks 4 / complete keys

Task 4

Create a three-disc phase strip: full, crescent, and gibbous. Use the same crater layout on each disc and a fixed light direction from the top. Label each disc with its phase name in the same position beside the disc.

Answer: Three discs in a row with identical crater positions, shadows pointing downward, and each phase name written in the same position beside its disc.

Reason: A fixed light direction and shared crater layout make phase differences directly comparable. Consistent label placement keeps the strip easy to check.

Check: Compare crater positions across discs, confirm all shadows point down, and check that each phase label sits in the same position beside its disc.

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Source rubric / reflection

- [ ] Disc shape is circular and the terminator matches the chosen phase.
- [ ] Tonal steps 1 to 5 are distinguishable and used consistently.
- [ ] Crater shadows point away from the fixed light direction.
- [ ] Crater rims show a light edge on the lit side and a dark edge on the shadow side.
- [ ] Phase variation is visible across full, crescent, and gibbous discs.
- [ ] Labels for phases and tonal steps sit in the same position beside each disc and use consistent wording.

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