Moonlight Night Drawing: Silhouettes and Cast Shadows

Original tasks 1, 2, 3 / complete keys

Task 1

A moon center is 5 cm above the horizon. A post is 3 cm tall on the horizon. Using a shadow ratio of 1.5, state the shadow length and direction.

Answer: Shadow length is 3 cm times 1.5 equals 4.5 cm. The shadow points away from the moon along a line from the moon center through the post base.

Reason: The ratio multiplies object height by 1.5. Direction follows the convention: away from the moon through the base.

Check: Measure 4.5 cm from the post base along the shadow line and confirm the line passes through the moon center and the post base.

Task 2

Two trees stand at the same distance from the moon. Tree A is 4 cm tall with a 6 cm shadow. Tree B is 6 cm tall. Using the same ratio, what shadow length should Tree B have?

Answer: Tree B shadow length is 9 cm.

Reason: Tree A ratio is 6 divided by 4 equals 1.5. Apply 1.5 to Tree B: 6 times 1.5 equals 9 cm.

Check: Divide each shadow length by its object height; both should equal 1.5.

Task 3

A silhouette covers the moon center. State one fix that keeps the scene readable as a moonlight night drawing.

Answer: Move the silhouette or the moon so the moon center is visible, or redraw the silhouette edge to leave a gap around the moon.

Reason: The moon must remain visible to justify the moonlight and shadow direction.

Check: Look at the drawing and confirm the moon circle is not fully covered by a dark shape.

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Original tasks 4 / complete keys

Task 4

A ground area is shaded medium, and a silhouette is shaded light. State the correction and why it matters.

Answer: Darken the silhouette until it is darker than the ground. Silhouettes must be the darkest values to read as silhouettes.

Reason: If the silhouette is lighter than the ground, it no longer reads as a dark shape against the scene.

Check: Compare the silhouette tone with the ground tone; the silhouette should be visibly darker.

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Source rubric / reflection

- [ ] Moon position is marked and visible.
- [ ] At least two silhouette shapes are darker than the ground and sky.
- [ ] Each cast shadow points away from the moon along a line from the moon center through the object base.
- [ ] Shadow lengths use one consistent ratio for objects at the same distance.
- [ ] Sky and ground use at least three tonal steps.
- [ ] The scene reads as night, not sunrise or sunset.

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