Draw a Pecan Tree: Compound Leaves and Nut Clusters

Original tasks 1, 2, 3 / complete keys

Task 1

Draw a single pecan compound leaf with a rachis and nine leaflets. Describe the leaflet arrangement and state the total count.

Answer: A rachis line with four pairs of narrow pointed leaflets along the sides and one terminal leaflet at the tip, totaling nine.

Reason: Pinnately compound leaves attach leaflets in pairs plus a terminal leaflet, so four pairs plus one gives an odd total of nine.

Check: Count the leaflets: four pairs equals eight, plus one terminal equals nine, which is odd.

Task 2

Sketch a nut cluster of four pecans on a short common stalk attached to an outer twig. State where the cluster belongs in the crown.

Answer: Four small oval nuts with pointed caps on a short stalk at the end of an outer twig in the outer third of the crown.

Reason: Pecan nuts grow in small clusters near outer twig ends, so the cluster should be placed in the outer canopy, not deep inside.

Check: Verify the cluster has four nuts, one common stalk, and sits near an outer twig.

Task 3

A sketch shows a crown 10 cm tall and 8 cm wide with limbs pointing mostly upward. Name one structural fix and one check to confirm the fix.

Answer: Widen the limb angles and extend outer twigs so the crown becomes broader than tall; then measure crown width and height to confirm width is greater.

Reason: Pecan crowns are broad and spreading, so upward limbs and a tall narrow outline do not match the species.

Check: Measure the crown outline: width should exceed height after adjustment.

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Original tasks 4 / complete keys

Task 4

Draw two compound leaves on one twig, one with seven leaflets and one with eight. Identify the error and correct it.

Answer: The eight-leaflet leaf is incorrect because the count is even; add one terminal leaflet to make nine, or remove one side leaflet to make seven.

Reason: The convention requires an odd leaflet count with a single terminal leaflet at the rachis tip.

Check: Recount leaflets on each rachis and confirm both totals are odd and include a terminal leaflet.

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Source rubric / reflection

- [ ] Crown is broader than tall and roughly balanced left to right.
- [ ] Three to five main limbs leave the trunk at wide angles.
- [ ] Each compound leaf shows a visible rachis and an odd number of narrow pointed leaflets, including one terminal leaflet.
- [ ] Nut clusters contain two to five nuts on a short common stalk near outer twigs.
- [ ] Nuts are smaller than leaflets and clusters are unevenly spaced.
- [ ] Drawing is readable as a pecan tree; valid alternative leaflet shapes and handwriting styles are accepted.

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