Mule Deer Drawing: Body, Ear, and Forked Antler Construction

Original tasks 1, 2, 3 / complete keys

Task 1

Using U = 3 cm, draw a side-view mule deer body with length 3.5 U and shoulder height 2.5 U. Add four legs each 1.2 U long. Do not add ears or antlers yet.

Answer: Body length = 10.5 cm, shoulder height = 7.5 cm, leg length = 3.6 cm. The drawing shows three overlapping ovals and four tapered leg rectangles.

Reason: Multiply each unit value by 3 cm: 3.5 × 3 = 10.5, 2.5 × 3 = 7.5, 1.2 × 3 = 3.6. Overlap ovals by one-third to keep the body continuous.

Check: Measure the drawn body length and shoulder height with a ruler. They should be within 0.6 cm of 10.5 cm and 7.5 cm (0.2 U at U = 3 cm). Check that legs are within 0.6 cm of 3.6 cm.

Task 2

Draw two mule deer ears with length 0.8 U and width 0.45 U using U = 4 cm. Place them at 10 o'clock and 2 o'clock on a head oval. Add inner ear lines that stop short of the tips.

Answer: Ear length = 3.2 cm, ear width = 1.8 cm. The ears are teardrops with wide rounded tops and narrow bases, angled slightly outward.

Reason: Multiply 0.8 × 4 = 3.2 and 0.45 × 4 = 1.8. The widest point is halfway up each ear. Inner lines follow the outer contour but leave a small margin at the tip.

Check: Measure each ear length and width. They should be within 0.8 cm of 3.2 cm (0.2 U at U = 4 cm) and within 0.4 cm of 1.8 cm (0.1 U at U = 4 cm). Check that the widest point is near the midpoint and that inner lines do not touch the tip.

Task 3

Draw one antler with a main beam 1.5 U long using U = 2 cm. Add a main fork at two-thirds of the beam, with two branches each 0.5 U long. Add a secondary fork on the outward branch. Do not let branches cross.

Answer: Main beam = 3 cm, fork point at 2 cm, each branch = 1 cm. The secondary fork splits the outward branch into two short points.

Reason: 1.5 × 2 = 3 cm for the main beam. Two-thirds of 3 cm is 2 cm. Each branch is 0.5 × 2 = 1 cm. The secondary fork is placed near the end of the outward branch.

Check: Measure the main beam and branches. They should be within 0.4 cm of 3 cm and 1 cm (0.2 U at U = 2 cm). Check that branches do not cross and that angles are between 30 and 45 degrees.

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Original tasks 4 / complete keys

Task 4

Combine the body, ears, and antlers into one side-view mule deer drawing using U = 2.5 cm. Body length 3.5 U, shoulder height 2.5 U, ear length 0.8 U, ear width 0.45 U, main beam 1.5 U, branches 0.5 U. Add eye, nose, and hooves.

Answer: Body length = 8.75 cm, shoulder height = 6.25 cm, ear length = 2 cm, ear width = 1.125 cm, main beam = 3.75 cm, branches = 1.25 cm. The drawing includes all parts with firm final contour lines.

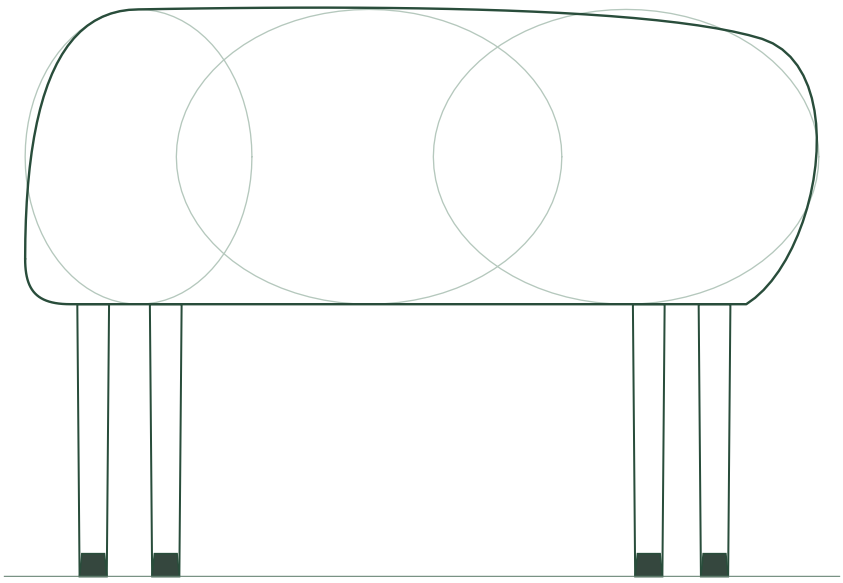
Reason: Multiply each unit value by 2.5 cm. Place ears at 10 o'clock and 2 o'clock, antlers at the head base, and legs under the body. Check each part against its unit value before finalizing.

Check: Measure each part and compare to the calculated values within 0.5 cm (0.2 U at U = 2.5 cm). Check that the body has three overlapping ovals, ears are teardrops, antlers have forks, and final lines are firm.

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Task 1 / answers

Mule-deer construction / all units are hypothetical classroom choices / labelled mm print 1:1

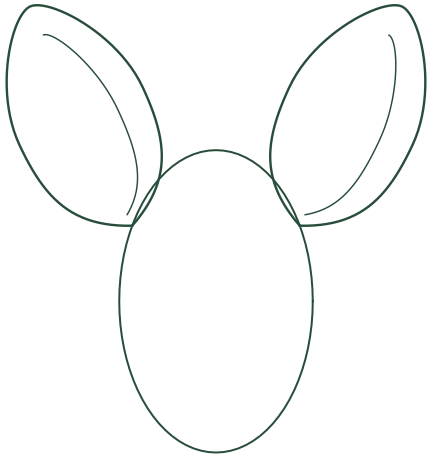


U = 3 cm. Body 10.5 cm; shoulder 7.5 cm; four legs 3.6 cm. Three oval widths use chosen 1 U, 1.7 U, 1.7 U; each next oval overlaps the preceding width by one third, giving exactly 3.5 U overall. Task 1 deliberately has no head, ears or antlers.

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Task 2 / answers

Mule-deer construction / all units are hypothetical classroom choices / labelled mm print 1:1



U = 4 cm: each ear axis is 3.2 cm, maximum perpendicular width 1.8 cm at the midpoint. The inner contours end before the rounded tips. Bases use the 10 and 2 clock positions on this frontal head study.

Mule Deer Drawing: Body, Ear, and Forked Antler Construction

Task 3 / answers

Mule-deer construction / all units are hypothetical classroom choices / labelled mm print 1:1

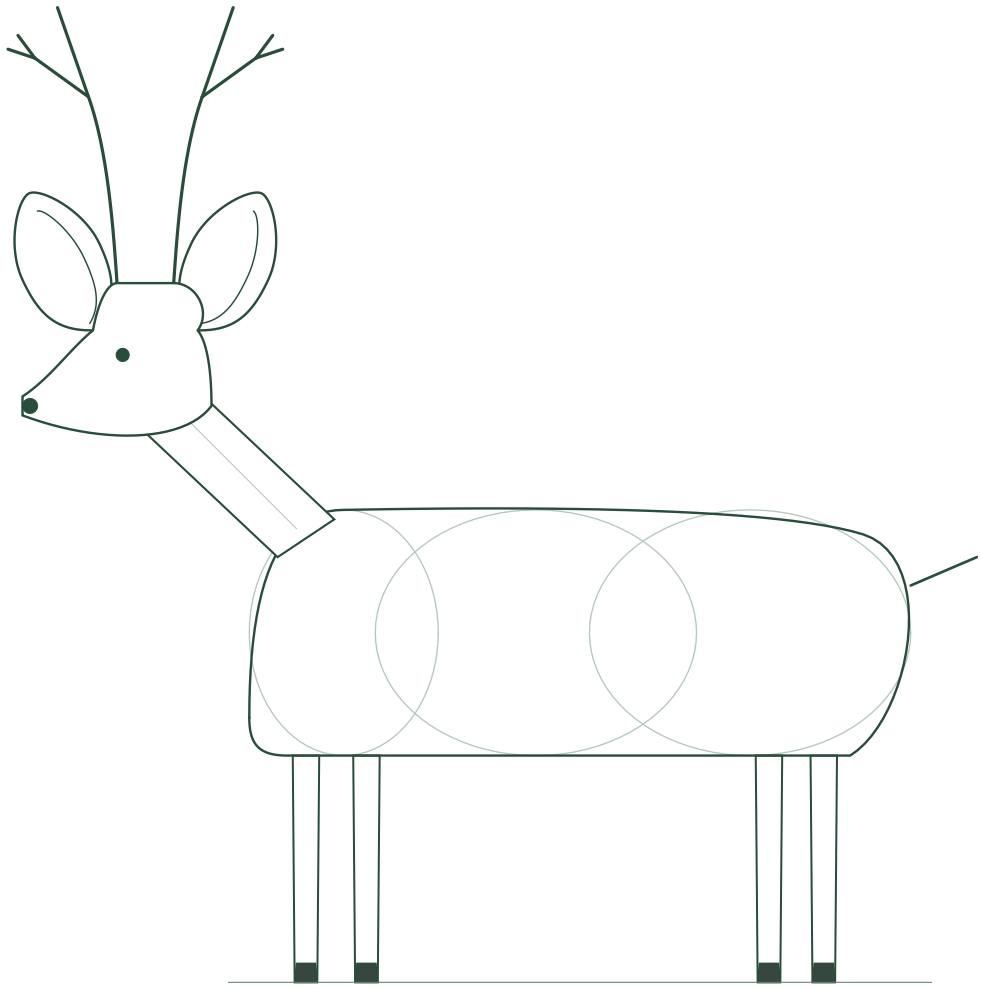


U = 2 cm. Root to first fork = 2 cm; the continued upper beam adds 1 cm, so the full main-beam path is 3 cm. The outward branch is 0.7 cm to its secondary fork plus either 0.3 cm tip, totalling 1 cm. Both included fork angles are chosen 35 degrees, within the stated 30 to 45 range.

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Task 4 / answers

Mule-deer construction / all units are hypothetical classroom choices / labelled mm print 1:1



U = 2.5 cm. Body 8.75 cm; shoulder 6.25 cm; four legs 3 cm. Three oval widths use chosen 1 U, 1.7 U, 1.7 U; each next oval overlaps the preceding width by one third, giving exactly 3.5 U overall. Ear 2 x 1.125 cm; main antler path 3.75 cm and each first branch path 1.25 cm. Head unit means its nose-to-back horizontal span. All values are hypothetical.

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Source rubric / reflection

- [ ] Body length is within 0.2 U of 3.5 U.
- [ ] Shoulder height is within 0.2 U of 2.5 U.
- [ ] Ear length is within 0.2 U of 0.8 U and width is within 0.1 U of 0.45 U.
- [ ] Each antler has at least one main fork and one secondary fork.
- [ ] Antler branches do not cross and angles are between 30 and 45 degrees.
- [ ] Final contour lines are firm and continuous; construction lines are light and broken.
- [ ] Valid alternatives are accepted if proportion checks pass and forking logic is followed.

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