Cat Anatomy Drawing Practice: Skeleton, Muscles, and Joints

Original tasks 1, 2, 3 / complete keys

Task 1

A described cat silhouette has a spine line 10 cm long. The shoulder joint is 2 cm from the skull base, and the hip joint is 8 cm from the skull base. Mark both joints with squares, draw a ribcage oval centered between them, and state the oval's center position in centimeters from the skull base.

Answer: Shoulder at 2 cm, hip at 8 cm, ribcage oval centered at 5 cm from the skull base.

Reason: The midpoint between 2 cm and 8 cm is (2 + 8) / 2 = 5 cm. The oval spans roughly from 2 cm to 8 cm, so its center is 5 cm.

Check: Measure from the skull base to your oval center; it should read about 5 cm. Confirm the shoulder and hip squares are at 2 cm and 8 cm.

Task 2

On a described side-view cat, the shoulder-to-elbow distance is 4 cm and the elbow-to-wrist distance is 4 cm. The hip-to-knee distance is 5 cm and the knee-to-ankle distance is 5 cm. Mark all four joints with squares and state the total front-leg joint-to-joint length and the total hind-leg joint-to-joint length.

Answer: Front leg total is 8 cm; hind leg total is 10 cm.

Reason: Front leg: 4 cm + 4 cm = 8 cm. Hind leg: 5 cm + 5 cm = 10 cm. These are hypothetical example values, not standards.

Check: Add the two front segments and the two hind segments separately. Confirm each sum matches your marked joint spacing.

Task 3

A described cat has a ribcage oval 6 cm long and 2 cm wide. Add a gluteal teardrop over the hip joint and a quadriceps oval on the front of the thigh. State the ribcage length-to-width ratio and explain whether the oval reads as a barrel or a narrow tube.

Answer: The ratio is 6:2, or 3:1. The oval reads as a barrel because its width is one-third of its length, which is a plausible chest proportion in this hypothetical example.

Reason: Divide length by width: 6 / 2 = 3. A 3:1 ratio gives a broad oval rather than a thin tube. The muscle masses should overlap the hip joint and thigh respectively.

Check: Measure the oval's length and width in centimeters and divide. Confirm each muscle mass overlaps a joint or bony landmark.

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Original tasks 4 / complete keys

Task 4

A described walking cat has four marked joints on each side: shoulder, elbow, wrist, and hip, knee, ankle. The front legs alternate so that when the left shoulder is forward, the right shoulder is back. Mark the joints with squares, connect them with limb lines, and state one check that confirms the alternating pattern.

Answer: The check is that the left and right shoulder squares sit at different positions along the spine line, and the corresponding elbow and wrist squares follow the same forward or back direction.

Reason: Alternating legs in a walk means opposite front legs are in different phases. If the left shoulder is forward, the right shoulder should be back, and each limb's joints should follow its shoulder's direction.

Check: Draw a vertical line through each shoulder square and compare their positions. Confirm the left and right shoulders are offset and that each limb's joints align with its shoulder's phase.

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Source rubric / reflection

- [ ] Spine line runs from skull base to tail base and is marked with at least three points.
- [ ] Ribcage oval sits between shoulder and hip and reads as a barrel, not a narrow tube.
- [ ] Shoulder and hip joints are marked with squares and placed plausibly along the spine.
- [ ] Elbow, wrist, knee, and ankle are marked with squares and connected by limb lines.
- [ ] At least three muscle masses overlap a joint or bony landmark.
- [ ] Labels use a consistent convention; x-height from baseline to midline is treated as approximate.
- [ ] Units are consistent throughout the drawing and any arithmetic checks.
- [ ] Valid alternatives in muscle shape, label handwriting, and small joint shifts are accepted.

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