Drawing Frogs: Compare Body Shapes and Leg Poses

Original tasks 1, 2, 3 / complete keys

Task 1

Draw a sitting frog silhouette with a body oval 8 cm wide and 4 cm tall. Add eye bumps and folded rear legs. State the width-to-height ratio.

Answer: The ratio is 8:4, or 2:1. The rear leg should fold into a Z shape with the knee close to the body and the foot pointing down or slightly forward.

Reason: A sitting silhouette is compact, so a 2:1 ratio is appropriate as a hypothetical example. The folded leg matches the sitting pose convention.

Check: Measure the oval with a ruler and confirm the ratio. Check that the knee is closer to the body than the foot and that the foot points down or forward.

Task 2

Draw a leaping frog silhouette with a body oval 12 cm wide and 4 cm tall. Add extended rear legs. State the ratio and describe the foot direction.

Answer: The ratio is 12:4, or 3:1. The rear leg extends back with the knee away from the body, and the foot points back or down, away from the body.

Reason: A leaping silhouette is longer, so a 3:1 ratio is a hypothetical example. The extended leg and backward foot match the leaping pose.

Check: Measure the oval and confirm the ratio. Check that the knee is farther from the body than in a sitting pose and that the foot points away from the body.

Task 3

Using a blank frog outline, draw two versions: one pushing off and one landing. Keep the body outline the same. Describe the rear leg joint positions for each.

Answer: Pushing off: knee bent, foot back, shin angled back. Landing: legs forward, knees bent to absorb, feet forward. The body outline stays unchanged.

Reason: Pose variation is isolated by keeping the body fixed. Pushing off requires a bent knee and backward foot; landing requires forward legs and bent knees.

Check: Compare the two drawings and confirm the body outline is identical. Check that the pushing-off foot points back and the landing foot points forward.

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Original tasks 4 / complete keys

Task 4

A drawing shows a sitting frog with a knee angle of about 50 degrees and a leaping frog with a knee angle of about 110 degrees. The sitting oval is 5 cm by 2.5 cm and the leaping oval is 10 cm by 2.5 cm. Check the ratios and the relative knee angles.

Answer: Sitting ratio: 5:2.5, or 2:1. Leaping ratio: 10:2.5, or 4:1. The leaping oval is longer, which is acceptable as a hypothetical variation. The sitting knee angle (50 degrees) is smaller than the leaping knee angle (110 degrees), so the pose difference is correct.

Reason: The ratios show a compact sitting shape and a longer leaping shape. The relative knee angles confirm the sitting pose is more folded than the leaping pose.

Check: Measure the ovals and compute the ratios. Estimate or measure the knee angles and confirm the sitting angle is smaller than the leaping angle.

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Source rubric / reflection

- [ ] Body silhouettes: sitting oval is compact (about 2:1 width-to-height, hypothetical) and leaping oval is longer (about 3:1, hypothetical).
- [ ] Eye bumps: two small bumps on the top edge near the snout in both silhouettes.
- [ ] Leg segments: each leg has a thigh, shin, and foot drawn as jointed segments with small joint marks.
- [ ] Sitting pose: rear knee close to the body, shin folded forward, foot down or slightly forward.
- [ ] Leaping pose: rear knee away from the body, shin extended, foot pointing back or down.
- [ ] Front legs: vertical for sitting, reaching or tucked for leaping.
- [ ] Blank outline variation: body outline unchanged, only leg poses differ.
- [ ] Convention consistency: joints marked as circles or small marks, segments straight, foot as a short line, triangle, or pad.
- [ ] Checkable arithmetic: body ratios and relative knee angles recorded and compared.
- [ ] Valid alternatives: different foot shapes or slight angle variations are accepted if joint positions and segment directions match the pose.

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