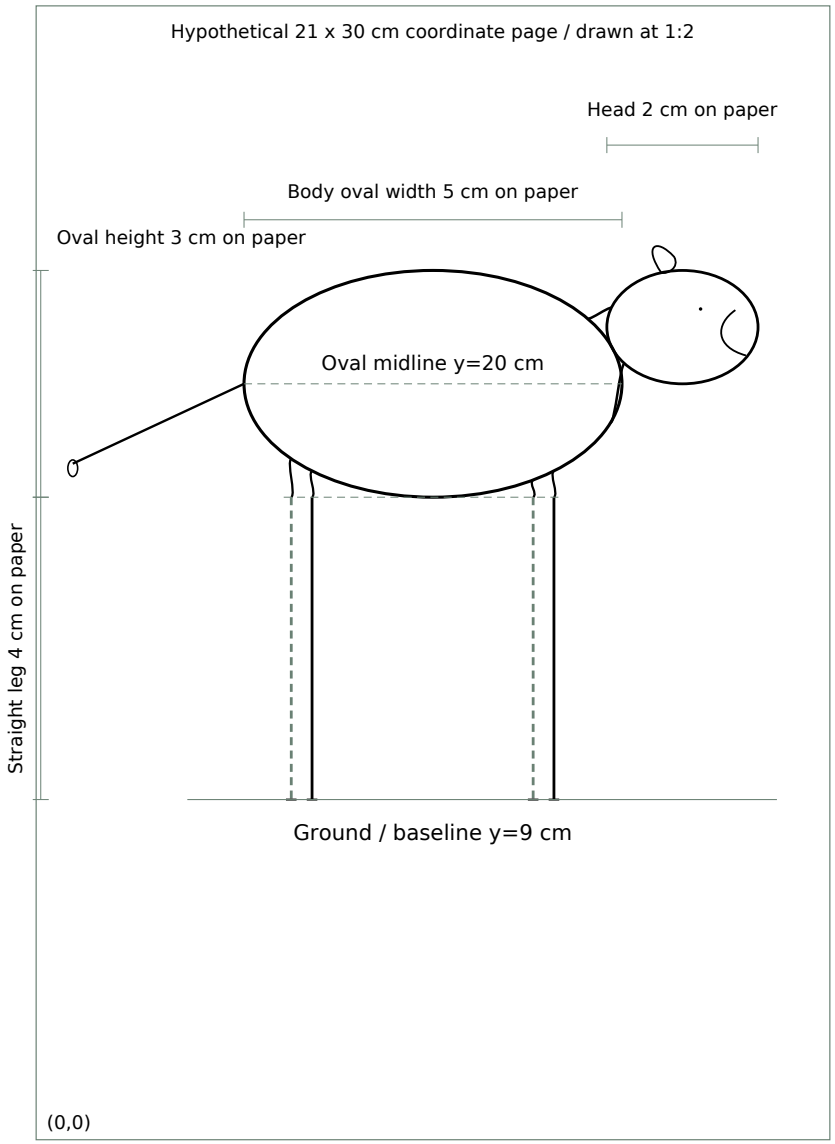
Calf Drawing: Body Proportions and Four Construction Steps

WORKED EXAMPLE / COORDINATE DRAWING

Draw a side-view calf on a portrait practice page 21 cm wide and 30 cm tall. Use the bottom-left corner as (0,0) and a body oval 10 cm wide and 6 cm tall centered at x=10.5 cm, with its bottom 8 cm above the baseline, a head 4 cm long, four legs ending on the baseline y=9 cm, and a short tail. Label the baseline and midline.

Body-attachment curves above the dashed start datum are not the measured leg strokes.



The outlined 21 x 30 cm page is a hypothetical coordinate frame printed at 1:2. It is not the physical size of this A4 or US Letter sheet. Read global coordinates from its lower-left origin.

The complete worked explanation is on the next answer page.

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WORKED EXAMPLE / COMPLETE ANSWER AND CHECK

Use the portrait page coordinates x=0–21 cm and y=0–30 cm, with the bottom-left corner as (0,0). Place the horizontal baseline at y=9 cm. Center the 10 cm body oval at x=10.5 cm, so it spans x=5.5–15.5 cm; its bottom is 8 cm above the baseline at y=17 cm and its top is y=23 cm, leaving 7 cm to the top edge. Attach a 4 cm head at the front, slightly above the midline; 4 cm is two-thirds of the 6 cm oval height, within the accepted range. Draw two near legs 8 cm long and two far legs 8 cm long, all touching the baseline. Add a 5 cm tail at the rear. Darken the outline and erase guides. Check: oval height = 23 - 17 = 6 cm; horizontal oval midline y = 17 + 3 = 20 cm; head ratio = 4 / 6 = two-thirds; oval-bottom height above the baseline = 17 - 9 = 8 cm, equal to the 8 cm straight-leg length, so all feet reach the ground line.

INDEPENDENT COORDINATE CHECKS

Body x limits: 10.5 - 5 = 5.5 cm and 10.5 + 5 = 15.5 cm.

Baseline y = 9 cm; oval bottom y = 9 + 8 = 17 cm.

Oval top y = 17 + 6 = 23 cm; top margin = 30 - 23 = 7 cm.

Horizontal oval midpoint y = 17 + 3 = 20 cm.

Head-to-oval-height ratio = 4 / 6 = 2 / 3.

Each lower straight leg stroke spans y = 17 to y = 9: length 8 cm.

Body-attachment curves above y = 17 connect the four origins to the curved oval. They are not included in the straight 8 cm stroke.

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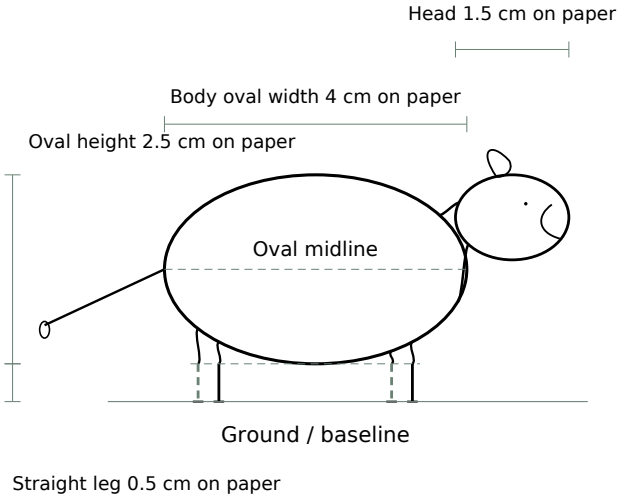
These are hypothetical drawing choices, not biological measurements. Numeric single-calf diagrams use scale 1:2; double measured paper lengths to record task values. The error/repair pair is separately marked 1:3. Gray guides are measurement annotations; curved body attachments above the common start datum are not counted in the lower straight leg lengths.

Calf Drawing: Body Proportions and Four Construction Steps

EXERCISE 1 / SEPARATE ANSWER

On a blank side-view frame, redraw the calf from the four construction steps. Use a body oval 8 cm wide and 5 cm tall, a head 3 cm long, and a baseline 1 cm below the oval. Add a simple ground line and label the midline.

Body-attachment curves above the dashed start datum are not the measured leg strokes.



A completed drawing shows a wide oval, a small head at the front, four legs touching the baseline, a short tail, and a labeled midline. The ground line is the baseline. With a 5 cm tall oval, a 3 cm head is about three-fifths of the oval height, which fits the accepted range.

Why: The body oval sets mass, the head is about three-fifths of the oval height (within the three-fifths to two-thirds range), and the legs connect the oval to the baseline.

Check: Measure the oval width and height, confirm the head length is about 3 cm, and check that all feet touch the baseline. Confirm the midline label is present.

Task 1 gives body oval 8 x 5 cm, head 3 cm and straight leg span 1 cm. Tail 3.5 cm is a sample choice.

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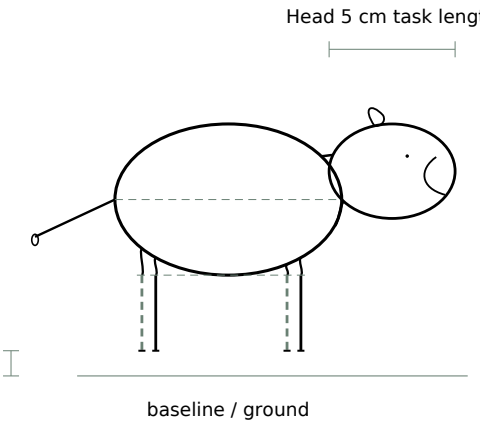
Calf Drawing: Body Proportions and Four Construction Steps

EXERCISE 2 / SEPARATE ANSWER

A learner draws a calf with a body oval 9 cm wide and 6 cm tall, a head 5 cm long, and legs that stop 1 cm above the baseline. Identify two proportion or placement errors and describe a fix for each.

GIVEN ERRORS

Same 9 x 6 cm body oval / diagram scale 1:3

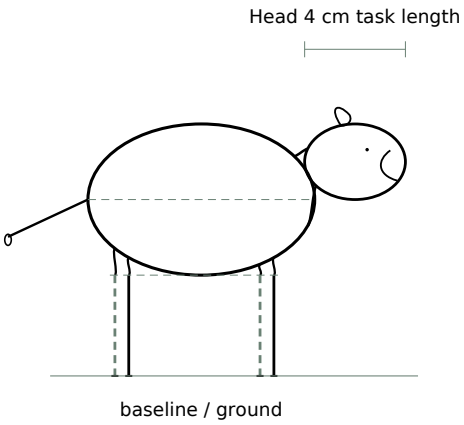


Foot gap 1 cm

5 / 6 is above the chosen 2 / 3 limit

ONE VALID REPAIR

Same 9 x 6 cm body oval / diagram scale 1:3



Feet extended by 1 cm to reach ground

4 / 6 = 2 / 3; all four feet touch

The head is too long for this worksheet's chosen proportion range and should be shortened to about 4 cm. The legs do not reach the baseline and should be extended by 1 cm so the feet touch the ground line.

Why: For this worksheet, choose a head length of roughly three-fifths to two-thirds of the body oval height; a 5 cm head on a 6 cm oval is too long. Feet must meet the baseline to show standing placement.

Check: Compare head length to oval height and measure the gap between each foot and the baseline.

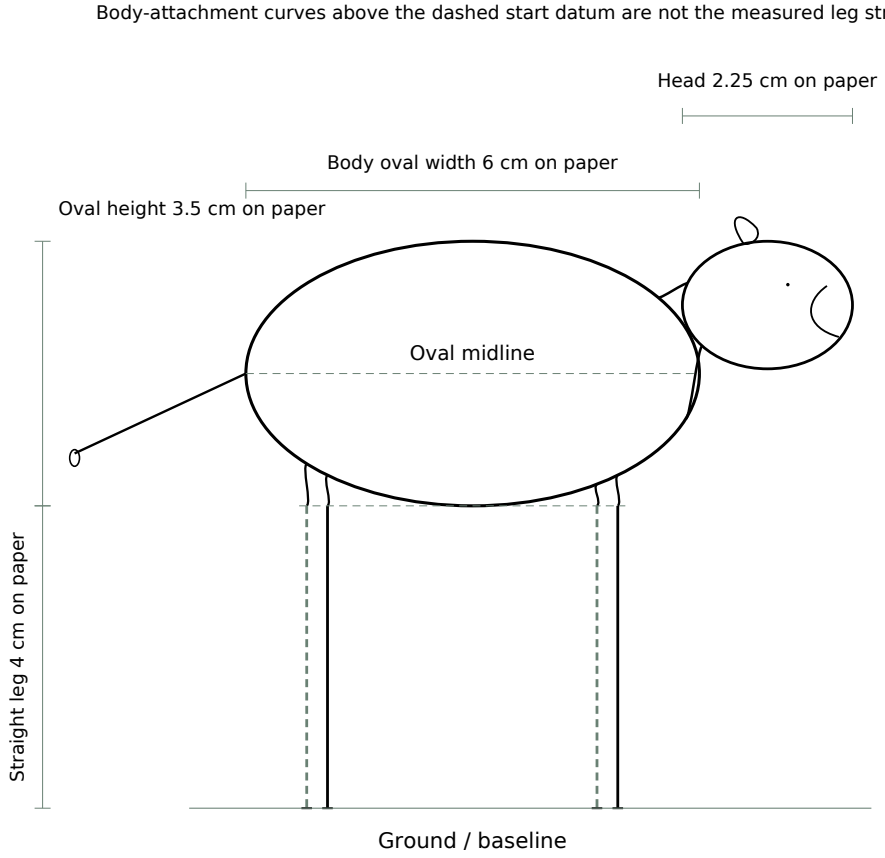
Task 2 gives body oval 9 x 6 cm, head 5 cm and a foot gap of 1 cm. The repaired head 4 cm and feet extended by 1 cm answer those two stated errors.

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Calf Drawing: Body Proportions and Four Construction Steps

EXERCISE 3 / SEPARATE ANSWER

Using a baseline and a body oval 12 cm wide and 7 cm tall with its bottom 8 cm above the baseline, place four legs so that all four feet land on the baseline. Draw two near legs 8 cm long and two far legs 8 cm long, with the far legs offset slightly behind the near legs. Describe where the feet land relative to the baseline and how you would check vertical alignment.



All four feet should land on the baseline. The oval bottom is 8 cm above the baseline and each leg is 8 cm long, so every leg reaches the ground line. The far legs are slightly offset behind the near legs but are the same length, so they reach the same ground line. Check vertical alignment by confirming each leg line is perpendicular to the horizontal baseline.

Why: Leg length is measured from the bottom of the body oval to the baseline. Equal leg lengths keep all four feet on the same baseline, while offsetting far legs shows depth without changing ground contact.

Check: Use a straight edge to compare each leg line to the baseline and measure the distance from the oval bottom to the baseline.

Task 3 gives body oval 12 x 7 cm and four straight legs 8 cm. Head 4.5 cm and tail 5 cm are illustrative choices.

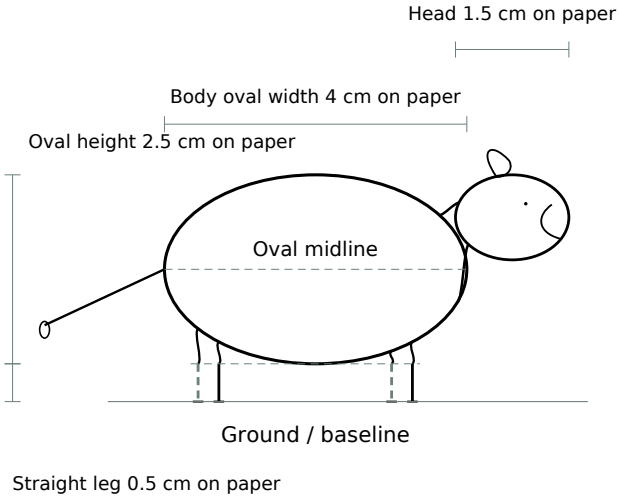
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Calf Drawing: Body Proportions and Four Construction Steps

EXERCISE 4 / SEPARATE ANSWER

Draw a side-view calf with a body oval, head, legs, and a short tail. Add a baseline and mark the oval halfway guide. Explain how the guide helps you place one feature.

Body-attachment curves above the dashed start datum are not the measured leg strokes.



Use the oval halfway guide to place a feature consistently; for example, align the eye near the head center and attach the legs beneath the body oval. Draw the tail as a small, narrow silhouette detail for this worksheet.

Why: A halfway guide gives the oval an internal reference for arranging the head and legs. The tail description is a stylistic choice, not a claim about calf anatomy.

Check: Confirm that the head, body oval, and legs are connected into one readable side-view drawing and that the halfway guide was used for a stated placement.

Task 4 has no numerical givens. This sample chooses oval 8 x 5 cm, head 3 cm, straight legs 1 cm and tail 3.5 cm. Other consistent proportions are valid. The horizontal oval midpoint helps place the head above that guide.

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Calf Drawing: Body Proportions and Four Construction Steps

RUBRIC AND REFLECTION

Apply these checks to the complete drawing, not to deliberately unfinished construction stages. Numerical proportions are worksheet choices.

1. Body oval is wider than tall and clearly represents torso mass.
2. Head is smaller than the body oval and has a short muzzle.
3. All four legs reach the baseline and are roughly vertical.
4. Tail is attached to the rear and is short with a small tuft.
5. Baseline and midline are labeled or clearly marked.
6. Final outline is clean and guide marks are erased.
7. Valid alternatives are accepted if proportions and placement are consistent.

- [ ] I used the body oval, then head/neck, four legs/feet and tail.
- [ ] I labeled the ground line and oval halfway guide.
- [ ] I checked the stated sizes and all four ground contacts.

One feature I positioned with the halfway guide:

My measurement or alignment check:

One valid alternative I used:

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