Draw Africa's Outline: Coastline Landmarks Step by Step

Original tasks 1, 2, 3 / complete keys

Task 1

Using a 10 by 12 grid, place the Horn anchor at column 9, row 8 and the Cape anchor at column 4, row 1. Describe the clockwise curve between them and state one check you would use.

Answer: From the Horn, curve south along the East African coast, staying near columns 7 to 8, then bend southwest to the Cape anchor. Check that the curve passes within one square of both anchors and does not cross the western half of the frame.

Reason: The East African coast runs generally south from the Horn before turning toward the Cape. Keeping the curve in the eastern columns preserves the continental shape.

Check: Measure the distance from the drawn curve to each anchor in grid squares; both should be one square or less.

Task 2

A sketch measures 8 squares tall and 8 squares wide. Compute the height-to-width ratio and decide whether it passes the convention.

Answer: The ratio is 8 divided by 8, equal to 1.0. This is below the acceptable range of 1.1 to 1.4, so the sketch does not pass the proportion check.

Reason: Africa's outline in this frame is taller than wide, so an equal height and width suggests the northern or southern extent is too short.

Check: Re-measure height and width in the same square unit and recompute the ratio.

Task 3

The Gulf of Guinea anchor is at column 3, row 5. Your western coastline runs straight from column 1, row 7 to column 4, row 1 without curving inward. What mistake does this show, and how do you fix it?

Answer: The straight line misses the inward curve of the Gulf of Guinea. Fix it by drawing a curve that passes near column 3, row 5 before continuing south to the Cape.

Reason: The Gulf is a concave feature on the western coast; a straight segment removes that landmark and distorts the outline.

Check: Confirm the revised curve passes within one square of the Gulf anchor and still reaches the Cape anchor.

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Original tasks 4 / complete keys

Task 4

You label the Nile Delta inside the outline at column 6, row 10. State the labeling mistake and give a corrected placement rule.

Answer: The mistake is placing the label inside the outline, which obscures the coastline. Correct it by placing the label outside the outline within one square of the Nile Delta anchor.

Reason: Labels are judged by placement and legibility; outside placement keeps the contour visible and still identifies the landmark.

Check: Check that the label is outside the closed curve and that its distance to the anchor is one square or less.

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Source rubric / reflection

- [ ] Outline stays inside the measured frame and uses one consistent square size.
- [ ] All named anchors are marked and the outline passes within one square of each.
- [ ] Height-to-width ratio is between 1.1 and 1.4 for the hypothetical frame.
- [ ] Outline is a single closed curve with no self-intersections.
- [ ] Labels are outside the outline, legible, and within one square of their anchors.
- [ ] Valid alternative curves and letter styles are accepted when the placement checks pass.

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