Draw a Mesopotamia Map: Rivers, Cities, and Labels Made Simple

Original tasks 1, 2 / complete keys

Task 1

A map area is 18 cm wide and 24 cm tall. You place Kish at 10 cm from the left border and 6 cm from the bottom border. Nineveh is 4 cm east and 10 cm north of Kish. Give Nineveh's position from the left and bottom borders, and the straight-line distance between the two markers.

Answer: Nineveh is 14 cm from the left border and 16 cm from the bottom border. The distance is the square root of (4 squared plus 10 squared) = square root of 116, about 10.8 cm.

Reason: Kish is at (10, 6). Moving 4 cm east gives 10 plus 4 equals 14 cm from the left. Moving 10 cm north gives 6 plus 10 equals 16 cm from the bottom. The distance uses the Pythagorean relationship: 16 plus 100 equals 116, and the square root of 116 is about 10.8 cm.

Check: Plot both points on a 1 cm grid and count 4 across and 10 up. Measure the straight line with a ruler; it should read about 10.8 cm. Confirm both points lie inside the 18 cm by 24 cm area.

Task 2

You draw the Euphrates as a double line 4 mm apart and the Tigris as a double line 5 mm apart. At the narrowest point the gap between the two rivers is 3 cm. What is the total width from the outer edge of the Euphrates to the outer edge of the Tigris at that point?

Answer: The total width is 3.9 cm.

Reason: Outer edge to outer edge equals Euphrates width plus gap plus Tigris width: 4 mm plus 30 mm plus 5 mm equals 39 mm, which is 3.9 cm. Convert all values to the same unit before adding.

Check: Measure the gap and both river widths on your drawing with a ruler in millimetres, add them, and convert to centimetres. The sum should match 39 mm.

Draw a Mesopotamia Map: Rivers, Cities, and Labels Made Simple

Original tasks 3, 4 / complete keys

Task 3

A label box is 8 mm tall. Capital letters must reach the top of the box, and lowercase bodies sit between baseline and midline. If the midline is halfway up the box, how many millimetres above the baseline is the midline? State one acceptable lowercase letter height and one acceptable capital letter height in millimetres.

Answer: The midline is 4 mm above the baseline. One acceptable lowercase body height is 4 mm (reaching the midline), and one acceptable capital height is 8 mm (reaching the top). Other heights are acceptable if lowercase bodies stay between baseline and midline and capitals reach the top.

Reason: Half of 8 mm is 4 mm, so the midline sits 4 mm above the baseline. The convention allows any legible style: lowercase bodies may be shorter than 4 mm as long as they sit between baseline and midline, and capitals may be any height that reaches the top of the box.

Check: Draw the box, mark the midline at 4 mm, and write a test word. Check that lowercase bodies do not cross the midline and capitals touch the top. Measure with a ruler.

Task 4

You place three city markers: Ur at 5 cm from the left and 3 cm from the bottom, Uruk at 9 cm from the left and 3 cm from the bottom, and Babylon at 7 cm from the left and 7 cm from the bottom. Are all marker spacings at least 2 cm? Give the three distances.

Answer: Yes, all spacings are at least 2 cm. Ur to Uruk is 4 cm. Ur to Babylon is the square root of (2 squared plus 4 squared) = square root of 20, about 4.5 cm. Uruk to Babylon is the square root of (2 squared plus 4 squared) = square root of 20, about 4.5 cm.

Reason: Ur to Uruk is horizontal: 9 minus 5 equals 4 cm. Ur to Babylon: 2 cm across and 4 cm up, so 4 plus 16 equals 20, and the square root of 20 is about 4.5 cm. Uruk to Babylon: 2 cm across and 4 cm up, the same calculation, about 4.5 cm. All values exceed 2 cm.

Check: Plot the three points on a 1 cm grid, count squares for each pair, and measure the straight lines with a ruler. Confirm each measured distance is at least 2 cm.

Draw a Mesopotamia Map: Rivers, Cities, and Labels Made Simple

Source rubric / reflection

- [ ] Rivers: Tigris drawn east of the Euphrates, both flowing southeast, double lines visible, flow arrows correct.
- [ ] Cities: at least five city markers placed near rivers with at least 2 cm spacing, one label per marker.
- [ ] Labels: horizontal boxes of equal height, capitals reach the top, lowercase bodies between baseline and midline, leader lines used where needed.
- [ ] Layout: 2 cm border, north arrow labelled N, title present, grid erased, no overlaps.
- [ ] Legibility: all text readable at arm's length; valid alternative lettering styles accepted if they respect the box convention.

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