Checking a Temperature Probe at Two Phase Points

Scoring guide · one credit per question · review written work against each rubric

Checking a Temperature Probe at Two Phase Points

Question 1

Choice (2)

Both readings exceed their references by 1.5 °C.

Question 2

A single point gives one error value. The second point shows the same difference at a much higher temperature. That supports the fixed-offset model across these two checks.

Question 3

Water’s boiling temperature depends on pressure. The 100.0 °C reference applies at 1 atm, so a lower boiling temperature at lower pressure can be a real change rather than a probe error.

Question 4

Measure the boiling water with the second probe at 1 atm and compare with the 100.0 °C reference. Keep the water pure and verify that it is boiling. An equivalent matched-pressure comparison is acceptable.