Checking a Moving Divider Between Two Gases

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

Checking a Moving Divider Between Two Gases

Question 1

Choice (2)

At the same temperature and pressure, volume is proportional to amount. The ratio 1:2 splits 6.0 L into 2.0 L and 4.0 L.

Question 2

B has twice the amount of gas. At the same temperature, its larger volume gives it the same amount per volume and thus the same pressure as A.

Question 3

A has the product 1 × 600 and B has 2 × 300, so their ratio is 1:1. Both occupy 3.0 L of the same 6.0 L box.

Question 4

Select Refutes the claim. The divider blocks gas transfer. A still has half B’s amount but twice its Kelvin temperature, so the equal amount–temperature products explain the equal volumes.