Tracking Energy When a Model Gas Expands

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

Tracking Energy When a Model Gas Expands

Question 1

Choice (1)

P keeps the full 25 J. Q transfers 15 J to the platform, so it retains only 10 J.

Question 2

Twenty-five joules enter from the heater and 15 J leave by pushing the platform. The net increase is 25 − 15 = 10 J.

Question 3

The net gains differ. P gains 25 J and Q gains 10 J, so the same amount of the same gas warms more in P under the model.

Question 4

The gas must gain 25 J while transferring 15 J to the platform. The heater must supply 25 + 15 = 40 J.