Tracking Heat Through Two Reaction Paths

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

Tracking Heat Through Two Reaction Paths

Question 1

Choice (1)

A to B has a positive energy change of 40 kJ, so the material absorbs energy in that step.

Question 2

The two-step path has +40 − 70 = −30 kJ. It releases 30 kJ on balance, matching the direct path.

Question 3

The second step releases 70 kJ, but the first step absorbs 40 kJ. The combined change is a release of 30 kJ.

Question 4

A to B absorbs 40 kJ. B to A reverses that energy change and releases 40 kJ. Both have different start or end states from A to C, so they do not have to give the same change as the complete path.