Tracking Energy in a Model Cooling Loop

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

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Question 1

Choice (2)

The two box readings measure the quantity being compared. Q removes 30 J more than P.

Question 2

The room receives the 100 J electrical input plus 140 J removed from the box. Their sum is the 240 J delivered.

Question 3

The energy entering is 120 + 150 = 270 J. The outlet accounts for 250 J, leaving 20 J to leave through the casing.

Question 4

Measure the energy transferred from the casing to the room during the same cycle, separately from the main outlet. A casing transfer close to 20 J would account for the gap.