Comparing Decay Counts and Heat

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

Comparing Decay Counts and Heat

Question 1

Choice (1)

The simulation counts 24 decays in P and 12 in Q.

Question 2

P deposits 24 × 2 = 48 units. Q deposits 12 × 4 = 48 units. Their deposited energies match.

Question 3

The intervals are equal, but P has twice as many decays. Each Q decay deposits twice as much energy, so the energy readings match despite the different rates.

Question 4

If it has the P type, 48/2 gives 24 events. If it has the Q type, 48/4 gives 12. A direct event count or evidence identifying the decay type would distinguish the two.