Timing a Reusable Photochromic Label

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

Timing a Reusable Photochromic Label

Question 1

Choice (2)

The two labels start at the same reading. At equal elapsed times after the start the warm label has less B remaining, so more B has changed back to A.

Question 2

The warm label reaches 25 units at 4 minutes and the cool label reaches it at 8 minutes. The difference is 4 minutes.

Question 3

Both labels started at 100 color units. Under the model equal starting readings represent equal amounts of B. Their later differences support different rates, not different starting amounts.

Question 4

Form B is produced and used at equal rates. Its amount stays constant even though individual molecules continue changing. The model describes a steady state under illumination.