Tracking Solute When Ice Forms in a Model

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

Tracking Solute When Ice Forms in a Model

Question 1

Initially the concentration is 2.0/0.40 = 5.0 g/L. After freezing it is 2.0/0.25 = 8.0 g/L.

Question 2

Choice (2)

The marker mass is unchanged, while some water leaves the liquid phase. The same marker mass is in less liquid.

Question 3

It returns to 5.0 g/L. The same 2.0 g marker is again in 0.40 L liquid.

Question 4

It would be too high. The true marker mass left in the liquid would be below 2.0 g, so using 2.0 g overstates the numerator.