Tracking Composition as a Mixture Evaporates

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

Tracking Composition as a Mixture Evaporates

Question 1

Choice (1)

Ethanol is 15/20 of the vapor, compared with 40/80 of the initial liquid.

Question 2

After 15 ethanol and five water particles leave, 25 ethanol and 35 water particles remain. The ethanol fraction is 25/60, about 0.42.

Question 3

The sample contains five water particles as well as 15 ethanol particles. Ethanol is enriched in the vapor, but both types enter it.

Question 4

The second vapor is 10/20, or 0.50 ethanol, while the liquid supplying it was 25/60, or about 0.42 ethanol. The second vapor remains enriched relative to that liquid.