Checking a Solution With Water in a Side Trap

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

Checking a Solution With Water in a Side Trap

Question 1

Choice (2)

The solute cannot use the water held separately in the trap. The accessible liquid volume is 30 mL.

Question 2

The capacity is 0.16 × 30 = 4.8 g. The remaining 6.0 − 4.8 = 1.2 g becomes solid.

Question 3

Water and solute remain inside, so the total mass can stay fixed. Moving 20 mL away from the solute lowers the accessible liquid volume and allows solid to form.

Question 4

The capacity rises to 0.16 × 50 = 8.0 g. The chamber contains only 6.0 g in all, so all 6.0 g can dissolve and no solid remains.