Checking Acid Capacity After a Gas Leaves

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

Checking Acid Capacity After a Gas Leaves

Question 1

Choice (1)

Removing the gas leaves the nonvolatile acid contribution. Q uses 0.004 mol of OH^-.

Question 2

The gas accounts for 0.010 − 0.004 = 0.006 mol OH^-. With two moles of OH^- per mole of gas, the gas amount is 0.003 mol.

Question 3

The two tests differ by 0.010 − 0.004 = 0.006 mol of OH^-. The supplied ratio is two moles of OH^- per mole of dissolved gas. Dividing 0.006 mol OH^- by that ratio gives 0.003 mol of gas.

Question 4

Half the gas accounts for half of 0.006 mol OH^-, or 0.003 mol. Add the unchanged 0.004 mol contribution to get 0.007 mol OH^-.