Finding Acid Amount From Leftover Base

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

Finding Acid Amount From Leftover Base

Question 1

Choice (2)

The amount used is 0.020 − 0.006 = 0.014 mol.

Question 2

The rinse supplies 0.014 mol H^+ because the same number of moles of OH^- is used in the one-to-one reaction.

Question 3

Cup: 0.002 mol. Rinse: 0.012 mol. The blank accounts for 0.002 mol of the 0.014 mol used in the full test. Subtract that contribution to find what was used by the rinse.

Question 4

The full test starts with 0.020 mol OH^-, but 0.006 mol remains unused and 0.002 mol is used by residue in the cup. Only 0.020 − 0.006 − 0.002 = 0.012 mol OH^- reacted with the rinse. By the one-to-one ratio, the rinse supplied 0.012 mol H^+. Using all 0.020 mol would overstate that amount.